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EXAMINATION PAPERS.



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EXAMINATION PAPERS.

Matriculation Examination.

ENGLISH.

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FIRST PAPER.—PART I (A).

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BENGALI PASSAGES FOR TRANSLATION.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Translate into English any two of the following three passages:—

A.

১৭৭৪ খ্রীষ্টাব্দে হুগলী জেলার অন্তর্গত রাধানগর গ্রামে রামমোহন 35
রায় জন্মগ্রহণ করেন। তাঁহার পিতামহ কৃষ্ণচন্দ্র বন্দ্যোপাধ্যায় মুর্শি-
দাবাদের নবাব সরকারে তহশীলদারের কার্য করিয়া অনেক ধনসম্পত্তি
উপার্জন করেন। নবাব তাঁহার কার্য কুশলতার প্রশংসা হইয়া তাঁহাকে
রায় উপাধি প্রদান করেন। তাঁহার পিতা রামকান্ত রায় নবাব সর-
কারের ৯ লক্ষ টাকার ইজারাদার ছিলেন। তিনি পিতৃধন আরও বৃদ্ধি
করিয়াছিলেন। রামমোহন রায়ের পুত্র রামপ্রসাদ সদর দেওয়ানী
আদালতে ওকালতি করিয়া প্রভূত অর্থোপার্জন করিয়াছিলেন।
রামমোহন রায়ের উদ্বৃত্তন ও অধস্তন পুরুষে অর্থের অভাব কোন কালেই
হয় নাই, কিন্তু যে স্থানে তিনি জন্মগ্রহণ করিয়াছিলেন, কালচক্রে তাহা
পরহস্তগত হয়—যে বাটীতে তিনি বাল্যকালে বাস করিতেন, সেই বাটী
পরের বাসভূমিতে পরিণত হয়। বর্তমান যুগে রামমোহন রায়ের মত
মহাপুরুষ বঙ্গদেশে, এমন কি ভারতবর্ষে জন্মে নাই।

B.

অশোকের পিতা অশোককে লেখাপড়া শিখাইবার জন্ত একজন 35
শিক্ষক নিযুক্ত করিয়া দিলেন। কিন্তু অশোকের স্বভাব ভাল হইল না ;
শিক্ষক অনেক চেষ্টা করিলেন, অশোককে শৃঙ্গীল ও শাস্ত করিতে

পারিলেন না। এজন্য অশোকের পিতা বিরক্ত হইয়া অশোককে বাড়ী হইতে অনেক দূরে কোন এক স্থানে পাঠাইয়া দিলেন।

কিছুকাল পরে অশোক, আবার বাড়ীতে ফিরিয়া আসিলেন। এই সময়ে তাঁহার পিতার মৃত্যু হইল। অশোক রাজা হইলেন। কিন্তু তাঁহার স্বভাব ভাল হইল না। পাছে কেহ অনিষ্ট করে, এই আশঙ্কায় অশোক রাজা হইয়া, আপন বংশের অনেকের প্রাণসংহার করিলেন।

কয়েক দিন পরে এক জন ধার্মিক সন্ন্যাসীর উপদেশ শুনিয়া, অশোক ধার্মিক হইলেন। তিনি দুই লোকের সঙ্গে ছাড়িলেন, সর্বদা সৎকর্ম করিতে লাগিলেন। এই সময় হইতে অশোক দীনদুঃখীকে ধন দান করিতে লাগিলেন, পশুপক্ষীর উপকারের জন্য স্থানে স্থানে খাদ্য সামগ্রী রাখিয়া দিলেন। ঐ সকল সৎকর্ম করাতে তাঁহার 'চণ্ড' নাম দূর হইল। লোকে তাঁহাকে ধর্ম্মাশোক বলিতে লাগিল।

C.

পৃথিবীর নানাস্থানে নানাপ্রকার গৃহ দেখিতে পাওয়া যায়। 35
গ্রীণলণ্ড নামে এক অতি শীতপ্রধান স্থান আছে। সেই স্থান বৎসরের মধ্যে দশমাস কাল বরফে আচ্ছন্ন থাকে। তথায় বৃক্ষাদি অতি বিরল; যাহা জন্মে তাহাও দশ বার হাতের অধিক উচ্চ হয় না। শ্রুতরাং তথাকার অধিবাসীরা কাষ্ঠাভাবে বরফের দ্বারা গৃহনির্মাণ করিয়া থাকে। আমরা যেমন মাটি দিয়া দেয়াল প্রস্তুত করি, তাহার। তেমনি বরফের দেয়াল করে এবং সেই দেওয়ালের উপর বরফের খিলান করিয়া দেয়। আফ্রিকার কোন কোন স্থানে লোকে বড় বড় বৃক্ষের শাখার উপর কুটীর নির্মাণ করিয়া বাস করে। তাহাতে রাত্রিকালে তাহাদের হিংস্র জন্তুর ভয় থাকে না। চীন ও কাস্মীরের কোন কোন স্থানে, লোকে বারমাসই নৌকায় বাস করে। আরব, প্রভৃতি দেশে কোন কোন জাতির নির্দিষ্ট বাসস্থান নাই। তাহারা তাঁবু সঙ্গে করিয়া ঘুরিয়া বেড়ায়, এবং যখন যেখানে সুবিধা পায়, তখন সেইখানে তাঁবু খাটাইয়া বাস করে।

ENGLISH.

FIRST PAPER.—PART I (A).

HINDI PASSAGES FOR TRANSLATION INTO ENGLISH.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Translate any two of the following extracts into English :—

A.

स्वामी शंकराचार्यको ब्राह्मण साक्षात् शंकर अर्थात् महादेवका अवतार मानते हैं। ठीक समय इनका मालूम नहीं परंतु अरबमें जब मुसल्मानोंको पेगम्बर महम्मद हुए उसीके लगभग यहां इनका होना साबित है। इन्होंने दिग्विजय किया अर्थात् राजाओंकी सभामें शास्त्रार्थ करके अन्यमतवालों को परास्त किया राजा इनके मतमें आगये। “यथा राजा तथा प्रजा इस देशमें प्रख्यात है। बौद्ध जो रह गये थे सब सारे सिंदुस्तान से निकाले गये अथवा वैदिक बना लिये गये। उनके विहार स्तूप मंदिर सब तोड़े जलाये गये उनकी जगहपर शिव स्थापन किये गये। कश्मीरसे कनकुमारी तक फिर ब्राह्मण पूजने लगे, पर शंकराचार्यने निश्चय जान लिया था कि इतने दिनों बौद्ध रहनेके बाद अब ठीक वैदिक मत चलना कठिन होगा इसी लिये समयानुसार ऐसे भाष्य बनाये और ग्रंथ रचे कि जिनपर सबका चित्त आजावे और बौद्धसे वैदिक होना बहुत घुरा न लगे। इनके पश्चात् स्वामी रामानुज हुए। उन्होंने कहा कि वेदांती शंकराचार्य का मत बड़ा कठिन है, सीताराम को भजों और सहज में तरो। लोगोंको बहुत भाया परंतु थोड़े ही दिनों बाद स्वामी बल्लभाचार्यने जन्म लिया और राधाकृष्णाका प्रेम ऐसा दिखलाया कि उसने सबका मन लुभाया विशेष करके स्त्रियों की भक्ति इसपर अधिक हुई और इस कारण उसकी उन्नति बहुत शीघ्र होगई।

35

B.

समरकंद पहुंचनेपर इसकी गवर्णमेंटने अमीर का आतिथ्य किया। इनके आगमनका समाचार पाकर तुर्किस्थानके वाइसरायने

35

इन्हें ताश्कंद बुलाया। इनके लिये मार्गका अच्छा प्रबंध हो गया। वहां पहुंचने पर पहले यह वाइसरायसे मिलने गये और फिर इनके सत्कारमें उन्होंने इनको मकानपर आकर भेंट की। वस तबहीसे इनको प्रथमवार यूरोपियन लोगोंकी चालढाल देखनेका काम पड़ा। इन्होंने वाइसरायको एक जड़ाऊ सूठकी तलवार कः बहुमूल्य काश्मीरी बुशाले भेंट किये। ईसाइयोंके बड़े दिनके उत्सवमें वाइसरायने इनको उस दावतमें संयुक्त किया जिसमें अनेक सुंदरी युवतियां थीं और सेनाकी कवाइज दिखलाई। दूसरे दिन वाइसरायने इनको सेक्रेटरी भेजकर बुलवाया और कहा कि इसके जारने आपका स्वास्थ्य पूंका है और आपसे भेंट करनेके लिये राजधानि सेंटपीटर्सबर्ग बुलवाया है।” यद्यपि अबदुर्रहमानको सेंटपीटर्सबर्ग जानेकी उत्कट इच्छा थी परंतु इनके बहमी नौकरोंने इन्हें न जाने दिया। लाचार होकर इन्हें वाइसरायसे कहना पड़ा कि “मेरी इच्छा तो बहुत है। मैं जारको दर्शन करनेमें अपना सौभाग्य समझता हूं परंतु अभी मेरे साथ के आदमी थके हुए हैं और जाभा बड़ी ठहरा इसलिए कुछ दिन विश्राम लेने बाद यदि फिर बुलाया जाऊंगा तो अवश्य आऊंगा” यह उत्तर पाकर वाइसरायने जारको ऐसाही तार दे दिया।

C.

वेंक्स नामका एक मनुष्य उद्योग और धैर्य को कार्यसिद्धिका मूलमंत्र समझता था। वह स्वयं इस मंत्रकी आराधना करया था और दूसरोंकी भी इसके अनुसार चलनेकी सम्मति देता था। वह बड़ा ब्यालु और प्रेमी पुरुष था, इस कारण अनेक उस्ताही युवक उसके पास सम्मति और सहायता लेनेके लिये आते थे। एक बार एक लड़केने उसके घरका दरवाजा खटखटाया। जोरकी आवाज सुनकर वेंक्सकी दासीकी क्रोध आगया। उसने लड़केको खूब धमकाया और वहांसे चले जानेके लिये कहा। इतनेमें शोरगुल सुनकर वेंक्स स्वयं बाहर आगया। उसने देखा कि एक लड़का अपने बिज्र लिये खड़ा है और दासी उसपर लातताती हो रही है। पूछा, ‘लड़के, मुझसे का काम है?’ उसने उत्तर दिया—“मैं आपके पास इसलिय आया हूं कि आप कृपा करके मेरी बिफारिश करें और मुझे शिष्य

विद्यालयमें चित्रविद्या सीखनेके लिये भर्ति करादे ।” वेक्सने लड़केसे कहा—“उक्त विद्यालयमें भर्ति होना सहज नहीं है । यह तेरे हाथकी बात भी नहीं है । पर तुम्हारे हाथमें जो चित्र हैं उन्हें तो मुझे दिखाओ ।” चित्रोंको अच्छी तरह देखकर वेक्सने कहा—“लड़के, अभी उक्त विद्यालयमें भर्ति होनेके लिये बहुत समय चाहिये । इस समय घर जाओ और अपनी पाठशालाका अभ्यास जारी रखो । मैं समझता हूँ तुम इस चित्रको लगभग एक महीनेमें अधिक अच्छा बना लोगे, उस समय—तैयार होजाने पर—मुझे यह दिखाया जाना ।” लड़का घर चला गया और उस चित्रको तैयार करनेमें परिश्रम करने लगा । पहलेकी अपेक्षा धूनी मिहनतसे यह चित्र तैयार किया और महीनेके अंतमें वेक्सको जाकर दिखाया । उसने कहा—“लड़के, प्रसन्न हो ; साहस रख । यदि तू जीता रहा तो संसारमें अपना नाम कर जायगा ।” वेक्सकी भविष्यदाणी पूरी सती । इस लड़केका नाम सुलरेडी था । यह बड़ा नामी चित्रकार हुआ ।

ENGLISH.

FIRST PAPER.—PART I (A).

URIYA PASSAGES FOR TRANSLATION.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Translate into English any two of the following :—

A.

ମଙ୍ଗଳବାର ସନ୍ଧ୍ୟା ପାଞ୍ଚ ଘଣ୍ଟା ସମୟରେ ହରି ଶୁଭ ମୁହୂର୍ତ୍ତରେ 35
ଘରୁ ବାହାରିଲେ । ସଙ୍ଗରେ ବାପା, ଭାଇ, ଶ୍ଵଶୁର କୁଟୁମ୍ବମାନେ ଓ
ଅନେକ ଦାସଦାସୀ ସ୍ଥଲେ । ଅନନ୍ତପୁର ସେଠାକୁ ୧୭ ମାଇଲ
ବାଟ ; ଭଦ୍ରକ ବାଟେ ସଡ଼କରେ ଯିବାକୁ ହେବ । ରାତି ପାହିଲେ
ବିଭାଘର ; ସୁତରାଂ ସମସ୍ତଙ୍କ ମନରେ ବିଶେଷ ଉଦ୍‌ବେଗ । ସେଦିନ
କୃଷ୍ଣପକ୍ଷ ଅଶ୍ଳମୀ ; ଅର୍ଥରାତ୍ରକ ଚନ୍ଦ୍ର ଉଦୟ ହେଲା । ଅର୍ଦ୍ଧଚନ୍ଦ୍ର

କ୍ଷୀଣ ଆଲୋକ ପୃଥ୍ବୀପୃଷ୍ଠରେ ସହସ୍ରା ବିସ୍ତାରିତ ହୋଇଗଲା । ବବାନ •ଯାଶ୍ବିନୀ ସେତେବେଳେ ଯାଇ ଅନନ୍ତପୁରରୁ ପାଏ ବାଟ ଆଉ ଗୋଟିଏ ଗ୍ରାମରେ ପହଞ୍ଚିଲେ । କନ୍ୟାପିତା ସେ ଗ୍ରାମରେ ଆଗରୁ ଗୋଟିଏ ଘର ଏ ମାନଙ୍କ ପାଇଁ ଭଡ଼ା ନେଇ ରଖାଇ ଯାଇଥିଲେ । ସେ ଘରଟି ଶ୍ଵେତ ହେଲେ ସୁନ୍ଦର । ଦେଖିବାକୁ ସୁନ୍ଦର, ଏବଂ ବାୟୁ ଗମନାଗମନର ସୁବିଧା ମଧ୍ୟ ଥିଲା । ବର ଓ ବରଯାଶୀମାନେ ଶୁଣିବ ଶେଷଭାଗ ସେଠାରେ ନିଶ୍ଚିନ୍ତରେ କଟାଇ ପଥଶ୍ରାନ୍ତ ଦୂର କଲେ । ସକାଳୁ ଯେତେବେଳେ ମଧ୍ୟ ଗଗନରେ ଚନ୍ଦ୍ର ଲୁଚିଗଲା, ପୂର୍ବଅକାଶରେ ସୂର୍ଯ୍ୟ ଉଦୟ ହୋଇଥାନ୍ତୁ । କୁଆମାନେ ଶୁଣି ଶୁଣି ଗଗନମଣ୍ଡଳରେ ମହା ଆନନ୍ଦରେ ଉଡ଼ିଥାନ୍ତେ । କିନ୍ତୁ ତା ହେଲା ନାହିଁ । ଖଣ୍ଡିଏ କଲ୍ ମେଘ ଉଠେଇ ଆସି ସହସ୍ରା ନଭେଦେଶ ଆଚ୍ଛନ୍ନ କରି ପକାଇଲା । ଅଶ୍ରାଏ ଭଲ ହୋଇ ବର୍ଷା ହୋଇଗଲା । ବସାଘର ତାନର ଠାଏ ବଠା ନଡ଼ା ଖର୍ସି ପଡ଼ି କଣା ହୋଇ ଯାଇଥିଲା । ସେ ବାଟେ ଗତି ଯେପରି ଖରପତଡ଼ ବର୍ଷାପାଣି ମଧ୍ୟ ଟୋପା ଟୋପା ହୋଇ ପଡ଼ିଲା । ବର୍ଷାପାଣି ଦେହରେ ଲାଗିଲେ କାହାରି ବଶେଷ କିଛି କ୍ଷତି ହୁଏ ନାହିଁ । ହରି ଶରୀର ଘର ସୁଖଭୋଗ କଳ୍ପନାରେ ଟୋପେ ଦିଟୋପା ପାଣିକି ଖାଉର କରିବେ କାହିଁକି : ସହସ୍ରା ଗୋଟାଏ ଦାରୁଣ ଆଲୋକ ପରେ ଏକ ଭୀଷଣ ନିର୍ଦ୍ଦୋଷ ଶୁଣା ଗଲା । ଲୋକେ ଆଁଶି ଫଟାଇ ଦେଖିଲାବେଳକୁ ହରି ଭୂଇଁରେ ପଡ଼ିଅଛନ୍ତି, ନାକରୁ ନିଶ୍ବାସ ନାହିଁ, ଆଖିରେ ଜ୍ୟୋତି ନାହିଁ, କି ନାଟିକାରେ ସ୍ଥାନ ନାହିଁ ।

B.

ଗଙ୍ଗାବନ୍ଧର ଶ୍ରେଷ୍ଠ ନରପତି ପ୍ରତାପରୁଦ୍ରଙ୍କୁ ଓଡ଼ିଶାପାର 35
ଆଲୋକଜାଣ୍ଡର ବୋଲି କୁହା ଯାଇ ପାରେ । କିନ୍ତୁ ଏତିକି କହି ରହିଲେ ପ୍ରତାପରୁଦ୍ରଙ୍କ ଜୀବନ ପ୍ରତି ସମ୍ପୂର୍ଣ୍ଣ ନିର୍ଦ୍ଦୟ କହ ହେଉ ନାହିଁ । ଆଲୋକଜାଣ୍ଡର ନିଜ ପ୍ରତିଭାବଳରେ ପୃଥ୍ବୀର ନାନା ଦେଶ ଜୟ କରି ଜଣେ ପ୍ରବଳ ପ୍ରତାପଶାଳୀ ବିଜେତା ହୋଇଥିଲେ । ପ୍ରତାପରୁଦ୍ର ମଧ୍ୟ ଦକ୍ଷିଣଭାରତର ପୂର୍ବ ଉପକୂଳବର୍ତ୍ତୀ ପ୍ରଦେଶମାନଙ୍କୁ ଜୟ କରି ନିଜ ସାମ୍ରାଜ୍ୟର ଅଙ୍ଗୀଭୂତ କରିଥିଲେ । ତାଙ୍କ ରାଜତ୍ବରେ

ଓଡ଼ିଶାର ସୀମା ଯେତେ ବସ୍ତୁତ ଥିଲା ତା ପୂର୍ବରୁ ବା ପରେ ଅନ୍ୟ କୌଣସି ରାଜ୍ୟ ସମୟରେ ସେପରି ହୋଇ ନାହିଁ । ଆଲେକଜାଣ୍ଡର ଯେପରି ଦେଶ ଜୟ କରି ପୁନର୍ବାର ବିଜିତ ରାଜାଙ୍କୁ ପ୍ରତ୍ୟର୍ପଣ କରିଅଛନ୍ତି, ପ୍ରତାପରୁଦ୍ର ମଧ୍ୟ ସେହିପରି କରିଅଛନ୍ତି । କିନ୍ତୁ ଏହାପରେ ଆଉ ହିନ୍ଦୁ ଜଣଙ୍କର ଭୁଲନା କରା ଯାଇ ନ ଯାରେ, ମୃତ୍ୟୁ ପର୍ଯ୍ୟନ୍ତ ଆଲେକଜାଣ୍ଡରଙ୍କ ଦେଶଜୟ-ଲଳସା ପୂର୍ଣ୍ଣମାତ୍ରାରେ ବିଦ୍ୟମାନ ଥିଲା । ବିଦେଶ ଜୟ ପ୍ରତାପରୁଦ୍ରଙ୍କ ଯୌବନରେ ଶେଷ ହୋଇଅଛି । ତାଙ୍କର ପ୍ରାୟୋଗିକ ଜଗତର ମଙ୍ଗଳ କାମନା, ପରପ୍ରତି ସହାନୁଭୂତି ଏବଂ ଭଗବତ୍ ଆନରେ କଟିଅଛି । ବୈଷ୍ଣବ ଧର୍ମର ଅନୁଷ୍ଠାନ ଚୈତନ୍ୟଦେବ ବଙ୍ଗ ଦେଶରେ ବସ୍ତୁତ କର୍ମକ୍ଷେତ୍ର ନିଧାର ଓଡ଼ିଶାକୁ ଆସିଲେ, ପ୍ରତାପରୁଦ୍ର ନିଜେ ତାଙ୍କ ଧର୍ମ ଗ୍ରହଣ କରି ପ୍ରଜାଗଣଙ୍କ ମଧ୍ୟରେ ତାର ବହୁଳ ପ୍ରଚାର କରାଇଲେ । ସେ ଚୈତନ୍ୟଙ୍କୁ ଦେଖିଲେ ଭାବରେ ବିହ୍ୱଳ ହୋଇ ଶସ୍ତ୍ରାର ଧୂଳିରେ ଲେଟିଯାଉଥିଲେ । ରାଜ୍ୟରେ ଧର୍ମଭାବ ଏତେ ଅଧିକ ଥିଲା ଯେ ଯେକେ ମିଥ୍ୟା କହୁ ନ ଥିଲେ, ଚୋର କରୁ ନ ଥିଲେ ଏବଂ ଶାନ୍ତିରେ କାଳ କାଟୁଥିଲେ, ପ୍ରତାପରୁଦ୍ରଙ୍କ ଶାସନ ସମୟ ଓଡ଼ିଶାର ଉଚ୍ଚହାସରେ ଚରକାଳ ସୁବର୍ଣ୍ଣଯୁଗ ବୋଲି ଘୋଷିତ ହେବ ।

ଗୋପାଳ ବାବୁ କଟକ ଇଞ୍ଜେନିୟର ବାଟେ ରେଳରେ ବହୁଥର ଯାତାୟାତ କରୁଛନ୍ତି । ଇଞ୍ଜେନିୟର କର୍ମବୃତ୍ତୀଙ୍କ ନିକଟରେ ସେ ବିଶେଷଭାବରେ ପରିଚିତ ବୋଲି ବୋଲି ତାଙ୍କର ବିଶ୍ୱାସ । ସେ କୌଣସି ଥର ମଧ୍ୟମ ଶ୍ରେଣୀରେ, କୌଣସି ଥର ବା ଚୂଢ଼ାୟ ଶ୍ରେଣୀରେ ଚରନ୍ତି । ସେ ଦିନେ ଗ୍ରୀଷ୍ମକାଳରେ ରାତି ପାହାନ୍ତିରୁ ଧାନମଣ୍ଡଳ ଇଞ୍ଜେନିୟର ଠାରେ ମାନ୍ଦ୍ରାଜ ମେଳରେ ମଧ୍ୟମ ଶ୍ରେଣୀରେ ଚଢ଼ିଲେ । ରାତି ଅନନ୍ତା ହେଉଥିବାରୁ ରାତିରେ ବସିଲା କ୍ଷଣି ଶୀଘ୍ର ନିଦ ଲାଗି ଆସିଲା । ପ୍ରଭାତକାଳୀନ ଶୀତଳ ସମୀର ଦେହରୁ କ୍ଳାନ୍ତି ଉପକାତ ସ୍ୱେଦବାସି ଶୁଖାଇ ଦେଲା । କୋଠରରେ କୌଣସି ଗୋଲମାଲ ନଥିବାରୁ ଗୋପାଳବାବୁ ଗଭୀର ନିଦ୍ରା ଅଭିଭୂତ ହୋଇ ନାନା

ସୁଖସ୍ୱପ୍ନ ଦେଖିବାକୁ ଲାଗିଲେ । ମହାନଦୀ ଶଙ୍ଖ ଉପର ଭୀଷଣ ଶବ୍ଦରେ ସେ ନଦୀର ଭଙ୍ଗ ବା ହେବ କାହିଁକି? ଗାଡ଼ି ଯେ କେତେବେଳେ ଆସି କଟକ ଇଞ୍ଜେନର ପୁଟଫର୍ମରେ ଛୁଡ଼ା ହେଲାଣି ସେ କଥା ଗୋପାଳ ବାବୁଙ୍କୁ ଆଦୌ ଗୋଚର ନାହିଁ । ଟିକଟ ସଂଗ୍ରହତା ଉଗ୍ରଭାବରେ ଦୁଆର ଫିଟାଇ କୋଠରରେ ପଶିଲେ । ଜଣେ ଶୋଇଛୁ ଦେଖି ଦୁଇଗୁରୁଥର ଉଚ୍ଛ୍ୱାସରେ ତାଙ୍କିଲାକୁ ଗୋପାଳ ବାବୁ ଉଠିଲେ । ତାଙ୍କୁ ସେପରି ଭାବରେ କେହି ରେଳଗାଡ଼ିରେ ଆଗରୁ କେବେ ଉଠାଇ ନଥିଲା । ଟିକଟ ସଂଗ୍ରହତାଙ୍କ ବ୍ୟବହାରରେ ତାଙ୍କର ବଶେଷ ରାଗ ହେଲା ; କିନ୍ତୁ ଭୁନି ହୋଇ ରହିଲେ । ଟିକଟ ସଂଗ୍ରହତା କହିଲେ, “ଟିକଟ ଦିଅ, ବାବୁ”, “ମୋର ମୁହଁ ମୋର ଟିକଟ” ବୋଲି ଗୋପାଳ ବାବୁ ଉଷ୍ମ ହସ୍ତ ସ୍ୱରରେ ଉତ୍ତର ଦେଲେ । “ତାହା ହେଲେ ଆପଣଙ୍କ ମୁହଁ ମୁଁ କାଟେ ।” ସେହି ଦିନଠାରୁ ଗୋପାଳ ବାବୁଙ୍କୁ ରେଳଗାଡ଼ିରେ ଅସାବଧାନ ହେବାର କେହି କେବେ ଦେଖି ନାହିଁ ।

ENGLISH.

FIRST PAPER.—PART I (A).

URDU PASSAGES FOR TRANSLATION INTO ENGLISH.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Translate any two of the following passages into English :—

A.

35

ایک روز ایک ظالم بادشاہ تن تنہا شہر سے باہر گیا اور
ایک آدمی کو ایک درخت کے نیچے بیٹھا دیکھا - پوچھا کہ
اس ملک کا بادشاہ کیسا ہے - ظالم ہے یا عادل - اس نے
جواب دیا وہ تو برا ظالم ہے - بادشاہ نے کہا تم مجھے پہچانتے

ہو۔ اس نے جواب دیا نہیں۔ بادشاہ نے کہا میں اس جگہ کا بادشاہ ہوں۔ وہ آدمی گھبرا اُٹھا اور بولا آپ کو خبر ہے کہ میں کون ہوں۔ بادشاہ نے جواب دیا نہیں۔ اس نے کہا کہ میں فلاں سوداگر کا بیٹا ہوں۔ ہر مہینے میں تین روز میں اپنے حواس میں نہیں رہتا۔ اُن دنوں میں سے ایک آج کا دن ہے۔ بادشاہ ہنسکر چپ ہو گیا *

B.

35

ایک شخص نے اپنے نوکر کو کہا کہ اگر تم صبح سویرے دو گوتے ایک جگہ بیٹھے دیکھو تو مجھے خبر دو۔ تاکہ میں بھی انہیں دیکھ لوں۔ اس لئے کہ یہ ایک عمدہ شگون ہے۔ یہ دیکھکر میرا تمام دن ہنسی خوشی سے گذریگا۔ غرض نوکر نے دو گوتے ایک جگہ بیٹھے دیکھے۔ اپنے آقا کو خبر دی۔ لیکن جب اُس کا آقا آیا اس نے صرف ایک ہی گوتے کو دیکھا۔ دوسرا اُڑ جا چکا تھا۔ وہ نہایت خفا ہوکر اپنے نوکر کو مارنے لگا۔ اُسی وقت کسی دوست نے اُسے کچھ کہانے کی چیزیں بھیجیں۔ نوکر بول اُٹھا غریب پرور آپ نے تو ایک ہی گوتا دیکھا اور آپ کو کہانے کی چیزیں مل گئی۔ اگر حضور دو گوتے دیکھتے تو حضور کے نصیب میں بھی مار ہوتی *

C.

35

ایک شخص کے پیت میں درد ہوا۔ اس نے حکیم کو جاکر کہا کہ حکیم صاحب۔ خدا کے لئے مجھے کوئی دوا دیجئے۔ نہیں تو میں پیت کے درد سے مرجاؤنگا۔ حکیم نے پوچھا تم

نے آج کیا چیز کھائی ہے - اس آدمی نے جواب دیا صرف ایک ٹکڑا جلی ہوئی روٹی کا - یہ سنتے ہی حکیم نے کہا تمہاری آنکھیں تو دیکھو - اس کے بعد ایک نوکر کو بلا کر کہا آنکھ کی دوا لو - بیماریہ سنکر چلا آٹھا - حکیم صاحب - کیا یہ دل لگی کا وقت ہے - میں تو پیت کے درد سے مرا جاتا ہوں اور آپ آنکھ کی دوا کا نام لیتے ہیں - حکیم نے جواب دیا میں پہلے تمہاری آنکھ کو درست کرنا چاہتا ہوں - اس لئے کہ یہ صاف ظاہر ہے کہ تم سیاہ اور سفید میں تمیز کرنا نہیں جانتے ورنہ تم جلی ہوئی روٹی ہرگز نہ کھاتے *

ENGLISH.

FIRST PAPER.—PART I (A).

PARBATIA PASSAGES FOR TRANSLATION INTO ENGLISH.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Translate any two, but only two, of the following passages into English :—

(a) जब गोतमको यश तिम्लको जन्मघूमि सम्म फैलियो । गोतमका 35
 वृद्ध पिताले तिम्लाइ एक वाजी-डेरन मनसुवा गरे । यस कारखले
 गोतम कपिलवस्तु गये तर आफनु नियमानुसार तिम्ले शहर का
 बाहिर कुने कुल्लमा ढेरा गरे । तेसै ठाउँमा तिम्लका पिता र सम्बन्धी-
 हरु तिनसित भेट गरन आये । अर्को दिन गोतम स्वयं शहरमा गइ
 कुने समयमा जो जो-तिम्लाइ आफना प्यारा राजकुमार र मालिक
 हुन भन्थान्थे तिनै सित भिक्षा मागन लागे । गोतमको-यस्तो काम
 देखि राजा ले-तिम्लाइ भने “हामिहरु एक प्रतापी योद्धा को वंशमा
 जन्मेका छौं, हाम्रो वंशमा-जन्मेको कुनै पुरुषले-आफनु पेट का लागि

आज सम्म कैसे सित भित्ता मागेको-कैन, तिमरो यो काम प्रशंसनीय हैन ।” गौतमले-जवाब दिने “तपाजीर तपाजीका वंशको-उत्पत्ति राजा वाट भयेको होला तर मेरो उत्पत्ति भने प्राचीन बुद्धहरू देखिन् भयेयो-हो । राजाले-आफना कुरालाइ दवरि लगे । वहाँ गौतम कि रानी वाहेक अरु सवे कुटुम्बहरू उनलाई-भेटन आये । पतिले त्याग गरियेकि विचारि-यशोधराले-स्वास्तिका दुःख र स्वास्तिको घमण्ड का साथ भनिन् “यहि म वाँहाँको दृष्टिमा केहि कु भने देखि वाँहाँ आफै म काँहाँ आउनु हुनेछ । म जहाँ राम्रा तरहेले-वाँहाँको स्वागत गरम शक्तकु ।” गौतमले आफनि रानीको कुरा बुझे एवं आफु सित हुइ जना चेला खियेर रानीलाई भेटन गये । यशोधराले आफना स्वामि राजकुमारलाई टाउको खोरेका र पहुँचो वस्त्र लायेका एक सन्यासीका वेशमा देखिन र आफुलाई समालन न शक्ती भैमा लोठिन् । तिनले पतिको पाउ समाति आँशु बहाउन लागिन् ।

(b) उहिले काशीमा बडा धनाढ्य राजा ब्रह्मदत्त थिये । तिन्का असंख्य सेना र रथहरू थिये । तेसै समयमा कोशलका राजा दीधिति पनि थिये, परन्तु ति धनाढ्य थियेनन । तिन्सित थोरै सेना र रथ थिये । जगत परिवर्तनशील, धनाढ्य राजा ले ई निर्वल राजा को देश र धन आफना वशमा परे । दीधिति आफनि रानीलाई खियेर काशी तर्फ भागे । काशीमा पुगि ति सन्यासीका वेशमा काल काटन लागे । केहि काल पछि तिन्कि रानीले कुरो पाइन । तेस बालक को नाम दिधाबु राखे । अलिक वर्षमा ति बालक ठुला भये । यस वयमा राजा ब्रह्मदत्तले आफना पुराना बेरि रानी समेत भेष बदलि काशीमा बसेकाहुन भन्ते थाहा पायो मानिष पठायि तिनिहरू लाइ पक्रि त्यायि वडो निर्दयता साथ मार्न लाये । तेस बेला तिन्का कुरा दिधाबु काशीमा थियेनन् परन्तु पिताको अन्त्य समयमा ति अकस्मात् तेसै ठाउँमा आई पुगे । राजा दीधितिले आफनु आखिरका बेलामा पुत्र तिर हेरेर पुत्रलाई अन्तिम उपदेश दिने “मेरो प्यारो दिधाबु, धिन, यिनाउँनाले शान्त हुँदै, धिन प्रीतिले शान्त हुन्छ ।” ई कुरा श्रुति पुवा दियाबु वन तिर लागे । त्यहाँ रुनु सम्म रोइ आफनु मनलाई शान्त गरि शहर तिर फर्के । सरासर राजाको तबेलामा ने

इनले नोकरि लिये । एकदिन मौक पायेर दियावुले विचार गरन लागी “राजा ब्रह्मदत्तले मेरो रथ, राज्य, अर्थ सबै आफनु अधिकार मा गयो । यत्ति मात्र हैन, यसले मेरा आमावावुलाइ समेत मायो । आज वल्ल मेले ति सबैको बदला लिने समय पाजे ।” तेस वेलामा आफना मृत पिताको अन्तिम वाक्य स्मरण हुदा म्यान बाट भिकेको तरवारलाइ राजकुमारले पर्याँकी दिये ।

(c) “तेसो भये सवारी होस्” भनि रामदास फेरि राजा सँग चलन लागे । जव साँझ पयो कुनै सहरको अलग अलग काना भयाको धर देखिये र रामदासले सोधे “अब याह सहर भित्रै कहि डेरा खोजुँ कि सहर वाहिर एकान्तमा राज हुन्छ र” राजाले भन्नु भयो “मेरा मनले ता एकान्त खोजदछ परन्तु जाहा तिम्रो इच्छा खोजे ।” यति कुरा गरि सहर वाहिर एउटा ठाउ तलविज गरि ति दुइ जना वास तसे । दुस्रोको केहि खाने कुरो रामदास सँग थियो, त्यो खाइ दुवै जना पल्टे । सारे थकाइले गरदा एककिनमा तिनिहरु निद्रित भये । चारै तिर मन्द मन्द वेगले चिसो वतास वहन लाग्यो, सखको घुप्पाहरु माथि चन्द्रमाको किरण परदा जंगलहरु पनि इन्द्रको वगेचा भैँ देखिन लागे । आधा रातमा अकस्मात केहि शब्दले व्यभाँउदा रामदास भट उठि वसे र नजर चारैतिर घुमाउद। देखे कि चन्द्रमालाइ कोपने कालो बादलको, टुक्रो भैँ एकजना कालो मानिस हातमा हतियार लिइ अलिक पर उभि रहेकन् । त्यो मानिसले भयो “हूनुलाइ उठा ।” मनमा डर परेकै थियो तापनि रामदासले जवाब दिये “किन इनले तिम्रो केहि मृत्यु खायेको छ र उठाउँ ?” रामदासलाइ केहि न भनि त्यो डरहाग्दो मूर्तिले राजलाइ पनि उठायो । रामदासले भट आफुले देखेको हाल वयान गरे । राजा अत्यन्त भयले त्रस्त भये परन्तु त्यो मानिस अगाडिने आइ पुग्यो र भयो “तिमिहरु दुवैजना उठ र त्यो सन्तुक वोकि मेरा पछि पछि हिड । मेरो घर सम्म पुग्याइ दिये पछि तिमिहरुलाइ चाहिये भन्दा दोवर ज्याला दिउँला । ठठाउन्नौ भन्नलाग्यो भनैँ दुवैको जान मार्न कु, सो बुझि भट उठि हाल, वेर, नगर ।”

ENGLISH.

FIRST PAPER.—PART I (A).

TRANSLATION FROM ASSAMESE INTO ENGLISH.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Translate into English any two of the following three passages :—

A.

আগৰ দিনত ভীমবায় নামেৰে এজন বজা আছিল। তেওঁৰ 35
শাতজনী মাদৈ আছিল। বজাই সৰু মাদৈক সকলোতো বেচিকৈ মৰম
কৰিছিল। সময়ত ডাঙৰ বাণী ছয়জনীৰ ছয়টি লৰা হল ; কিন্তু সৰু
মাদৈৰ লৰা-ছোৱালী একো নহল। এই সুবিধাতে ডাঙৰ মাদৈ সকলে
সৰু মাদৈৰ বিৰুদ্ধে বজাৰ আগত অনেক খল লগালে। বজায়ো খঙতে
সৰু মাদৈক ঘৰৰপৰা খেদি দিলে। এদিন ৰাতি-পুৱা সৰু বাণী ঘৰৰ-
পৰা ওলাই গল, আৰু গধূলি এখন ডাঠ হাবি পালেগৈ। তেতিয়া বেলি
মাৰ গৈছিল, আৰু বাট-পথ নেদেখা হৈছিল। বাণীয়ে উপায়ান্তৰ
নেদেখি এজোপা প্ৰকাণ্ড আহঁত গছৰ তলত নিশাটো যাপিবলৈ মন
কৰিলে ; আৰু তেওঁৰ বিহাৰ এক জাঁচল পাৰি শয়ন কৰিলে। যেতিয়া
ৰাতি দুপৰ হল, তেতিয়া সজীতৰ মধুৰ ধ্বনি বাণীয়ে সাৰ পালে ; আৰু
চক্ষু মেলি তেওঁৰ চাৰিওফালে দিব্য পোহৰ আৰু সমুখত এজন পৰম সুন্দৰ
পুৰুষ দেখিলে।

B.

তুমি অশোক-ফুল দেখিছা নে ? ধুনীয়া ৰঙা ফুলবোৰ দেখিবলৈ 35
কেনে শুৱনি !

এদিন এজন বজাৰ ফুলনি-বাৰীত কেই জনীমান মাইকী মানুহে
কিছুমান অশোক-ফুল চিঙিছিল। মালীয়ে এই কথা বজাৰ গোচৰলৈ
আনিবলৈ বজাই মানুহ কেই জনীক মৰালে। কিয়, জানা নে ?
বজাৰ নাম আছিল অশোক। বজাৰ নামেৰে যি ফুলৰ একে নাম শুক
তোলা অপৰাধত তিবোতা কেই জনীয়ে প্ৰাণ হেৰুৱালে।

ডেকা বয়সত অশোক বৰ দুৰ্দান্ত আৰু নিষ্ঠুৰ বজা আছিল।
তেওঁ এবাৰ কলিঙ্গ দেশ আক্ৰমণ কৰিছিল। সেই যুদ্ধত বহুত মানুহ
মৰিছিল। এদিন মাজনিশা অশোক অকলে নিজৰ শিবিৰত বহি
আছে। এনেতে বোদ্ধ সন্ন্যাসী এজন তেওঁৰ আগত উপস্থিত হলহি ;

আক মৰা চৰাই এটি বজাক দি কলে, “বজা! এই মৰা চৰাইটোক জীউ দিয়া।” বজা হল বুলি মৃতকক জীউ দিব পাৰে না?

কথিত আছে যে এই ঘটনাই অশোকৰ মন তেনেই পৰিবৰ্ত্তন কৰিলে। তেওঁ সকলো যুঁজ-বাগৰ এৰি দি, তেওঁৰ বাকী জীৱন লোক-হিতকৰ কামত উৎসৰ্গ কৰিলে।

C.

তোমালোকৰ অনেকেই গুৱাহাটী দেখিছা। ই গোটেই ভাৰতবৰ্ষৰ 35 ভিতৰতেই এখনি অতি পুৰণি নগৰ। প্ৰাচীন কালত নৰকাসুৱ, ভগদত্ত আদি প্ৰতাপী বজা সকলে ইয়াত ৰাজত্ব কৰিছিল। আজি কালিও ই আসামৰ ভিতৰত সকলোতোকৈ ডাঙৰ নগৰ আৰু ভাৰতৰ ভিতৰতেই এখন ধুনিয়া চাবলগীয়া ঠাই। বুটিছ ৰাজত্বৰ আৰম্ভণত ইয়াত আমাৰ শাসনকৰ্ত্তাসকল থাকিছিল। এতিয়া ব্ৰহ্মপুত্ৰ উপত্যকাৰ কমিছনাৰ চাহাব আৰু জজ চাহাব ইয়াত থাক। স্বৰ্গীয় চাৰ হেনৰী কটনৰ নামেৰে ইয়াত ১৯০১ খৃষ্টাব্দত কটন-কলেজ স্থাপিত হয়। এই কলেজ স্থাপন হোৱাৰপৰা অসমীয়া লৰাই অতি সুকলমে উচ্চ শিক্ষা পাব, আৰু কলিকতাৰ নিচিনা ডাঙৰ নগৰৰ প্ৰলোভনবোৰৰপৰা আঁতৰত থাকিব পাৰিছে। কটন কলেজত এম্.এ.-লৈকে পঢ়া হয়। অলপতে আমাৰ বৰ্ত্তমান শাসনকৰ্ত্তাৰ নাম অহুসৰি আইন পঢ়াৰ কাৰণে ইয়াতেই আলু-ল-কলেজ স্থাপিত হৈছে।

অশোকৰো তোমালোকে আটায়ে এই পৰীক্ষাত কৃতকাৰ্য হবা; আৰু এই কলেজ হুধনৰ উপযুক্ত ছাত্ৰ হব পাৰিব।

ENGLISH.

FIRST PAPER.—PART I (A).

KHASI PASSAGES FOR TRANSLATION.

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Translate into English any two of the following passages:—

(a) Ki kot ki sla ki long mynta ka bor kaba pyniaid bad synshar 35
ia ka pyrthei. Ha ki ri kiba shai ym don ei-ei kaba ki brier ki kham
niew kor pallat ban ia ka jingstad. U 'riewshai u dei hi u 'riew nang
kot nang kot nang sla. U 'riewshai u kham lah kaba duh shisien bam
ka ja ban ia kaba un duh ki kitab lane ki kot khubor ki ban bsa ia ka

jingmut bad mynsiem jong u. Ki jaid bynríew kiba la shai ki kyrshan katba lah ia ki nongthoh kitab, namar ba ki ngewthuh bha ba ki trei ka kam kaba kyntang bad kaba shitom ban bsa ban pjiah ia ki jingmut u paitbah ha ka ri. U Ruskin u ong shisien ba ki nongthoh kitab kiba khraw ki long ki syiem kiba synshar ia ki jingmut ki briew. Ki pynpaw ha ki briew ia ki jingsngew bad jingkwah bad ki jingdon kam kiba khraw jong ki, bad ki kyrsíew bad íalam jingmut ia ki sha ki kam kiba khraw bad kiba bha. Ki batai ha ki ia ki ain kiba shan bad kyntíew ia ka long briew man briew bad ka íaid ka íeng, bad ki kdew lynti kumno ba ka jaid bynríew kan roi bad kan bha. Ngí ki Khasi ngí ju bud ía u kni-u-kpa. Hynrei hangno mynta u kni-u-kpa? Sa tang ban ía pynlong kni pynlong kpa da ka kot ka sla du! La ym leh kumta ym bit shuh.

Ki kot khubor ki long mynta ka bor, bah kaba pyníaid ía ka pyrthei. Kaei ka kam ka ba khraw jong ki kot khubor? Kam da long eh ban thoh ía ki khubor bad ki jingjia kiba khraw ha ka pyrthei, ía kawei ka kam jong ki kot khubor ka long shisha ban pynbna ía ki jingphylla ha ki shkor ki ki briew. Kaei ka kam kaba khraw jong ki? Ki kot khubor, ía ki dei shaphang ka niam ne shaphang ka pyrthei, ki íalam ía ki jingmut ne jingkwah ba saphred jong ki briew, bad ki íalam jingmut de kumno ban íaid ban ím, ban trei bad ban leh, ha ki por kiba pher ba pher. Ki kot khubor ki long u shabi ía ki jingmut ki briew, bad khlem ki kot khubor, kino kino ki ri kiba shai kim lah ban ím. Ki briew ki ía kyrshan lem haba mih ki kot khubor kiba bit. Ha ri Khasi jong ngí ym pat don ka jingkyrshan kaba khlain ía kano kano ka kot khubor. Te kata ka pyni shai ba ngí dang duna ha ka bor pule. Bad ka jinglong kum kane kam dei ban neh.

Ki kitab ki ai jingbam bad ki pynksah dé ía ka jingmut. Kumba ka met ka don kam jingbam man ka sngi ban kyrshan ía ka, kumjuh ka jingmut kam lah ban ím bad ban trei khlem ía ka jingbam.

KI KTIEN ÍA ÍA KI SAMLA.

(b) "1. Ban nym ngat bieit eh ía lade, ngí dei ban peit sha baroh sawdong, kumba bun ki khwai ha khmat ki dohkha, bad bun ki shangkhawiah ía ki sim, kumta ruh bun ki jingriam ía ki briew. 35

2. Bun kiba peit tang shiliang khmat ki kham íohi ban ía kito kiba peit baroh ar, bun ruh kiba don ki khmat ba íshalak, hynrei ía u maw jynthut kim íohi satia.

3. Don kiba shu suba sníew ía baroh, kiba kum kita, ki ím kordit ha pyrthei. Don pat kiba shida than haduh ban leit kynthup bad pynsyaid ding sa ía ki 'sein puh kiba pjah.

4. Don kiba trei ha shyntur ka lawar ding, kim lei lei; kiwei pat ki mut tang ban shu syaid ha ding dpei, ki kum thang pynban ía ki kti.

5. Wat íadei lok badno badno tang namar ba u bha briew; ki juti ba ía niad sia bad pynphyrnai bha ruh, bunsien ym dang shem ki prek ki ban thar sa ía ki kjat.

6. Haba poi ka jinghikai thymmai, wat dait kyrkíoh eh ía ka katba ym pat tip ka dei u kpu ne ka long tang u maw. Ía ki met íap ruh ía ju leit die na kawei ka jaka sha kawoi pat ka jaka.

7. Wat ju shong khlem kam. Lada poh u bainong katno ruh, trei. I jingíoh íba rit í kham bha ban ía ka bym íoh ei ei. U Alhia u dei ban shim jinghikai ía lade na u dkhiw."

U Thomas Alva Edison u long uwei ríewstad uba don nam eh mynta ka sngi. U ía thaw bun ki jingthaw kiba phylla bad kiba myntoi ía ka pyrthei, kum ka telephon, ka phonograph bad bun

kiwei kiwei ki kor kiba phylla eh. Te une u saheb u la long uba pyrshah eh ia ka dih kiad. Shisien la kylli ia u, balei um dih kiad, bad u la pynphai ktien, "nga don ka rukom kaba kham bha ban pyndon kam ia la ka khlieh." Ban da u la mlien ban dih kiad, un ym nep jingmut shuh ban shem kat kita ki jingshem ba phylla baroh.

Ahba, ko Kpa! Uta uba lah ban ong ia kane naduh la ka myn-siem, u la pynmih ka jingkyndud kaba kham bang ban ia ka jong ki angel. Ka la don ka bneng ha ka jingjylliew jong kata ka ktien Kpa! Ha kane ka ktien ka don baroh katba nga lah ban pan; bad baroh katba nga don kam; bad baroh katba ka jingkwah jong nga ka mon. Nga la ioh baroh phar shaduh ka bynjukut haba nga lah ban ong, "Ko Kpa."

SHAPHANG KI ADONG SHNONG.

(c) Ki Shnong Khasi barok, ki don la ki rangbah kiba synshar 35
halor jong ki, lada ki Dolloi, ki Lyngdoh, ki lyngskor, ki Myntri ne kino kino ki rangbah kiba hapoh ka hor u Siem, kine ruh ki don bor ban bishar, ban pynshiton ia ki nongleh bamman ha ka dorbar; ki don ruh la ki adong adit ban pyniaid ia la ka shnong ha ka jingryntih kaba bha, kaba u Siem ruh u ia mynjur lem. Ia ki kajia majia, ne ki kam ei-ei kiba kham khia kham eh ki ju ap ne ai ha u Siem.

Ki rangbah shnong ki lah ban bishar ha la ka shnong kum u Siem ha ka dorbar.

(1) Uno-uno uba pep khlem da pyntip sha u rangbah, ha kaba leit sain ia ki 'law lyngdoh ki 'law adong lane kino-kino ki khlaw, kiba la buh ka adong ban leh shisien shi snem, kum ia uta u rangbah kin shim ka kuna pynkhein adong, kumba la buh ka dorbar.

(2) Uno-uno uba pep khlem da pyntip sha u rangbah, ha kaba leit shna lynti, pun jingkieng, ne pynkhuid ia kaei kaei kaba don kam ha ka lynti, kaba ju don ka adong shisien shi shem, kum ia uta ki rangbah kin shim ka kuna pynkhein adong, kumba la buh na ka dorbar.

(3) Uno-uno u bym treh leit thoh dieng thang briew haba la wer ia u, bad haba um shym niun shym pang ne don daw kaba biang ban pep, kum ia uta u briew yn bishar ki rangbah bad kin shain kuna.

(4) Kino-kino kiba ieh noh ia la u para shnong ha lynti leit jing-leit, haba ki la iohi ba u pang, kum ia kita ki briew u rangbah shnong un bishar bad un dain kuna ia ki.

(5) Lada uno-uno uba kren bein ia u kynja rangbah shnong ha dorbar un hap kuna san wei doh.

(6) Uno-uno uba ap masi ne ap blang khlem akor, ba kita ki jingri ki leit bam ia ka lyngkha u para lok, te uta u trai lyngkha un kem ia kita ki mrad un lam ha u rangbah shnong bad ka jingmudui artat, u rangbah un leit khmieh ia ka jingduh ka lyngkha bad un pynsiew ia ka jingduh ka lyngkha.

ENGLISH.

FIRST PAPER.—PART I (A).

GARO PASSAGES FOR TRANSLATION.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Translate into English any two of the following passages : -

A.

Da'o an'ching jedake donga ki'taprangko poraienga, skangode 35
uandake donga ki'taprang dongjachim. Maina skangode manderang
lekako dakna changkujachim. Unon manderang maikoba sena
skode, bolpleng ba plengrangosa serongachim. Aro ja'mano uamang
bolbijak ba bigalrango seaha. Uororo da'o gita chapa ka'ani kol-
rang dongkujani gimin ki'taprangko altue dakna man'jachim. Ki'tap
kingsako dakna nangode mande uko salnisal jakchisa mikot mikot
dake sena mangha. Aro, uandaken ki'tap kingsako senan ruutbea sal
nangaha. Uni gimin segimin ki'taprangni damba namen rakbeaha.
Aro dam rakani giminan pilak manderang uko ramram brena amja-
chim. Uni gimin na'a maiba ki'tapko poraina skode jeo ki'tap donga
uchinasa re'ange poraina nangachim. Indiba da'ode manderang
lekako danka changahani gimin, aro chapa ka'ani kolko bikotna
man'ahani gimin, neng'mangijan ki'taprangko dakatna aro uarangko
dam nom'e palna man'a, maikai pilakan uarangko bree ska gita
poraina patibeani onga.

B.

GAM'A ARO TENG'A.

Gam'ana bate teng'an gong'rakbata. Mikka kimpreton na'a gam'- 35
ako knana skang il'irapako nikchenggen. Aro slai goo, slaini gam'-
ako kanana skang wa'alni delipako nikchenggen. Iam maini gimin
ong'a? Maina gam'ana bate teng'ani re'ara gong'rakbatani gimin
an'ching gam'ako khana skang teng'ako nikronga. Mikka ripra-
pachi bangbangni balwa jitpakako man'a. Unon bangbango
balwani nangtinggriko gam'arangan mikka kimpretarang ong'a.
Unon teng'ani re'a ta'rakbatani gimin an'ching delipako nikso-
chengronga, aro uani adita ja'manosa gam'ade an'chingona sokbara.
Slai gooba na'a chel'ao chadenge niode, uni gam'ako knana
skangan slaini nolio wal'sareko nikchenggen. Maina teng'ani
re'a ta'rakbatani gimin uade rang san nang'ona sokanga, indiba
uni gam'ade ja'manosa gang'ona sokbaani gimin ukode na'a
ja'manosa knaa. Saniba kenta dokako ba turechi maikoba dat-
engako na'a chel'ao donge knatime nibo. Bolko datmane dat
taina tureko ra'doosa na'a uni gam'ako tak tak ine knagen, Pilakna
bate teng'ani re'an ta'rakbata. Teng'ade mikjapprakon mail lak so
hajal sotchek ta'rake re'a.

C.

Salsao menggo manggni rutiko cha'ueming uko apsan suale cha'na 35
man'jae jegrikengachim. Unon uamang makre mangsako nike ua
rutiko apsangrik suale on'china uko mol'molaha. Makre tochakaniko

ra'e rutiko apsangrik pe'tonge samprakchi ge'sako done toe niaha. Unon samsachi jrimbatani gimin apsan ong'atna gita jrimbatgipa-chiniko chikwake cha'aha, unoa samgipinchi tenggilkaaha. Indaken jrimbatgipachiko chikwake cha'rikriken bon'kamao rutian on'titisa-naha. U'ko nike menggorang aganaha, "Tochanabeaha, je on'tisa hangaki dongako chingna on'srangbo, chingan suale cha'ginok." Unon marko, "Indiba indake dakoara apsangrik suale on'e kakket bichal ka'a gita ongja" inemung uchiko bik uchiko bik chikwake to'ngkuaha, aro samsachinikode uni ku'sik ning'chi du'atsrangaha. Unon ruti on'titina agre dongjahako nike uko on'pachina menggorang mol'molbeaha. "Indiba indakode angni bichal ka'e neng'ani dormahara baosa" inemung makre gimikkon du'krome re'angaha. Menggorangde nirikmangmangaiaha. Uandaken manderangni mokor-doma ka'oa ukilranga gainko cha'tokronga.

ENGLISH.

FIRST PAPER.—PART I (A).

LUSHAI PASSAGES FOR TRANSLATION

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Translate into English two of the following passages:—

(a) Tun lai indohna-a German hovin in ropui tam tak an ti- 35
chhia a. In ropui berte zinga. Rheims khua-a biak-in chu in ropui
êm-êm a ni a. Chu mi biak—in chu kum tam tak sak a ni a, nimah-
sela German hovin minit tlem te chhungin an ti—chhe ta a. In
thiat hi, in sak aün nasatakin a awl zawk ani. Kawng—ka—te
chung a lung—mitem za ruk a awm a, a them chu a lian êm—êm a.
A hmun dang—a za ruk lai a wam bawk. Mi thian-ghlim lem leh
lalber lem, kum tin-a mi lem a awm a ni. Lung—mitem tam tak
awm mahsela lung—mitem dahna hmun tam tak a ruak a ni. Heng
hmun hi nakin lam mi tha mitem atan buatsaih a ni.

(b) Ka mumanga chuan vak-vai-tu chu thih-na-hlim-kawr kam 35
chu a va thleng a, mi pahnih hman-hmawh taka lokir a tâwk a.

Vak-vai-tu chuan, "Khawi-a-nge in kal dawn?" a ti a.

Mite chuan, "Kan lokir ani. Nang pawh kir ve a kan duh a che,
nunna leh thlamuanna i duh ber anih chuan," an ti a.

Vak-vai-tu chuan, "Engtiziange ni?" a ti a.

Anni chuan, "I kalna tur a hian kan kal dawn a, kan ngam chin
tawp kan kal a: kan lokir leh thei lo theih ani. Thui deuh phei chu
kal ila, i hnena thu shawi turin kan lokal thei lo tur ani," an ti a.

Nimalisela vak-vai-tu chu an hnena a kir ve lo va.

(c) Shihal pakhat hi a riltâm hle mai a, thingbul kaw rawng 35
chhunga berâmpu—in chhang leh sa thenkhat a hnut chhiah chu a
hmu a, a kal a, a va lut a. amah chuan hlim tak chuan a ei a. A ei
zawh chuan a lo chhuak leh dawn a, a leng ta lo va. Ka ei hnem
lutuk ani tih a lo in-hria a, a lungngai ta a, a hram a hram ta mai a,
shihal dang chuan a lo hria a lokal a. "Eng nge ni?" tün a zawt a.
Jhing bul-a awm shihal chuan a manganzia chu a hrilh a. Ani chuan,
"Engange i lungngaih? I luh laia i riltâm angin thep than in han
awm rih la, chutichuan awl takin i lo chhuak mai ang," a ti a.

ENGLISH.

FIRST PAPER.—PART I (A).

TRANSLATION FROM TAMIL INTO ENGLISH.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Translate into English any *two* of the following passages :—

(a) ஏழையாதிருந்தான் கல்விமானை ஒருநாளுஷன் 35
ஒரு நாள் அந்த அந்தப் பையனொருவன் அவன் பித்தில்
பிரயாணிக்கொண்டு வித்திக்கொண்டு ஒரு திரையாடலைத்
தீர்த்துக் கொள்ளியிருந்தான். அவன் நன்னுடைய பையன்
வஸ்துங்களைத்தெரிந்துக்கொண்டு போய் அவனைக்கொ
ண்டான். அந்தப் பையன்கொண்டு அவனுக்கு உதவிசெய்
யாததுத் தவிர அவனை உட்கார் என்று சொல்லியுமில்லை;
கல்விமானதுயாமடைந்து போய்விட்டான். மறுநாள் ஓர்
அழகான ஆடையை இரவல்வாங்கி அதைத்தரித்துக்
கொண்டுமறுபடியும் அங்கே போனான். திரையாவான் இவ
னைக்கண்டதும் அவனுக்குமரியாதை செய்து தனக்குக்
கிட்ட உட்காரவைத்து அவனுடன் சம்பாஷித்தான்.
பின்பு அவர்கள் போனதற்கு ஒன்றாய் உட்கார்த்த
பொழுது கல்விமான் ஒரு கவனஞ்செய்யப்பட்டான். எதிர்
துத் தன் ஆடையின் பேரில் வைத்தான். வீட்டு எஜமா
னன் ஏன் அப்படிச் செய்தாய் என்று அவனைக் கேட்டான்.
அவன் “நான் கேற்று என்பவையா உன் பேரில் வந்த
பொழுது எனக்குச் சம்பாஷி ஒன்றுக்கொட்க வொயில்லை,
இன்று நன்றாய் உடுத்துக்கொண்டு வந்திருக்கிறேன்,
ஆகையால் கேர்த்தியான பொருளைக்கொடுத்துக்கொள்,
இந்தச் சம்பாஷி இட்டிருப்பது என் ஆடைக்கா அல்ல
லது எனக்கா” என்று மறுபொழி சொன்னான். வீட்டு
எஜமானன் தன்னைப்பற்றி வெட்கமடைந்துகொண்டிருக்க
கேட்டுக்கொண்டான். உண்மையில் வறியவையொருவன்

திபாயுள் இருப்பவர்களுக்கன்றித்தங்களுக்கும் பேரையுள் சீர்த்தியையுள் தருவிப்பவர்களுக்கே உதவிசெய்ய மணிதந்தகந்தகன் செல்வத்தை தப்பலமுதையுள் உபயோககிறார்கள். திவனியமுள்ள மணிதந்தகன்பொருளை அபரத்திராரியுள் பவர்கள் பேரில் பாழாக்காமல் தருமஞ் செய்வதில் புத்தி புர்வமாய்ப் பகிர்ந்து செலவிடுவார்களாயின் பலகம் இப்பொழுதிருப்பதைவிட கேவலமாயிருக்கும்.

(b) நுதித்த நாழிகையில் மிதியனைத் தொலைக்காததுக்குத் தொலையானிகள் தொண்டு போனார்கள். இந்த வேடிக்கையைப்பார்த்தும் பொருட்டு அரசனும் வந்து சின்றான். அப்போது மிதியஸ் சுற்றிச் சின்றவர்களைப் பார்த்து, என் பிராண சிநேகனாகியதாமன் சிக்கிரத்தில் வந்து சேருவான்; அவன் வருவதற்கு முன்னே நான் மாணதண்டனைப்பெற்று பெண்டு பிள்ளைகளுக்கும், சிநேகர்களுக்கும், தேசத்தார்களுக்கும், அதிக பிரயோஜனகாரியாகிய அவனுடைய பிராணனைக்காப்பாற்றும்படி கடவுள் அனுக்கிரகிப்பாராக; பலநாளாக மாறாமல் எதிர்காற்று ஹே முகமாக அடித்தபடியால் அவன் சொன்னபடி வந்து சேரக்கூடாமற்போயிற்று. இதையோசித்துப்பார்ப்பீர்களாகில் அவன் மேல்குற்றமில்லையென்று தெரிந்து கொள்ளுவீர்கள்; நேற்றுமுதல் காற்று மாறியடிக்கிறபடியால் தாமன் சிக்கிரத்தில் வந்து சேருவான் என்று சொல்லிக் கொலையாளிகளைத் தங்கள் தொழிலைச் சிக்கிரத்தில் செய்துமுடிக்கும்படி கேட்டுக் கொண்டான்.

(c) ஜெயமடைந்தவனுடைய சைனியங்கள் தேரால் வியடைந்தவனுடைய மனைவிமக்களையும் அவனைச் சார்ந்தவர்களையும் பலாத்காரமாய்ச் சிறைப்படுத்தவாவது விற்கவாவது அனுமதி கொடுத்து அதுவகையில் அனுசரிக்கப்பட்டுவந்த வழக்கத்தை அப்பத்தனதாட்சியின் எழாம்வருஷத்தில் இருபத்தேதாம் வயதில் நிறுத்தி விட்டான். பலநவன் குற்றங்கள் எத்தன்மைமனவாயி

னும் அவனுடைய மக்களும் அவனைச்சார்ந்தவர்களும் அரசன் விளம்பரத்தின்படி, தங்கள் இஷ்டப்பிரகாரம் தங்கள் சொந்தவிட்டுக்கோ தங்கள் இனத்தார் விட்டுக்கோ செல்லச் சுதந்திரமுடையவர்களாய் இருக்கவேண்டும். பெரியோராயினும் சிறியோராயினும் எவனாயும் அடிமையாக்கலாகாது. “புருஷன் கெட்டவழியில் நடந்தால் அது எப்படி மனைவியின் குற்றமாகும்? தந்தை (இராஜவிரோதமாகக்) கலகஞ்செய்தால் மக்களை எப்படி குற்றஞ்சாட்டலாம்” என்று அப்பெருந்தகையான அரசன் வாதித்தான்.

மற்றத் தர்வழக்கங்களைச் சீர்திருத்துவதில் அநேக விதமாய்த் தயாராவும் தீர்க்கவேக்கமுமுள்ள அரசமுறை தவிராத உறுதியுடன் அனுசரிக்கப்பட்டது. தனதாய் சூரியன் எட்டாம் ஆண்டான அறித்தவருஷத்திலேயே, சக்காவர்த்தியானவன், தனக்கு மிகவும்தகு வருமானம் தருவதாயினும், தனது ஹிந்து பிரஜைகளின் மனசுபட்சிக்குப் பாதகமென்று தனக்குத் தோற்றின ஒர்விரைய ஒழிக்கத் தீர்மானித்தான். உலகத்தில் ஹிந்துக்களைக் காட்டிலும் ஸ்தலபாத்தியாயில் பற்றுள்ள ஜனங்கள் எவரும் இல்லை. ஹிந்துஸ்தானத்தின் ஒவ்வொரு மாகாணத்திலும் அதற்குச் சிறப்பான தேவதையும் அதற்குரிய மகிமைபும் உள்ள அவர்களையுடைய திவ்ய ஆலயங்கள் அநேகமாய் இருக்கின்றன. பாத்திரைக்காரர்கள் சொப்பவேண்டிய பிரயாணங்கள் பெரும்பான்மையாய் ஆராயும் கஷ்டசமையுமே இருந்தன. முகலருக்கு முன்னிருந்த ஆப்கனியர்கள் இப்பாத்திரைகளை மிகவும் பெரிய நிலையான வருமானத்துக்கு முலமாக மதித்தனர். ஆகையால், அவர்கள் ஒவ்வொரு பிரயாணியின் திச்சயமான அல்லது உத்தேசமான வரும்படி க்கேற்றபடி பிரயாணிகளுக்கு வரி விதித்திருந்தார்கள்.

ENGLISH.

FIRST PAPER.—PART I (A).

TRANSLATION FROM TELUGU INTO ENGLISH.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Translate into English any *two* of the following passages :—

(a) కృష్ణుండు తిండిపోతుగా నుండెను, వాండు తనచేతిలోనైక 35
ముండినపక్షమున, వెంటనే పండ్లుగాని మిఠాయిగాని కొనుటకయి
కర్చునెట్టుచుండెను. ఒకనాండు వాండు సాశశాలనుండియింటికి
వచ్చుచుండెను. వాండు బజారుప్రక్కనుండి పోవుచునొకయంగడి
యందుజీడిమామిడి లేకముంతమామిడి గింజల (cashew nuts) రాశి-
నొకదానినిచూచెను, అట్టిగింజలనంతకు యుండు ఎన్నడును చూచి-
యుండినందున, వాండు అంగడివాని యొద్దంబోయి యాగిజలు తినుటకు
బాగుండానాయనియడిచెను, నిప్పులమీంద కాల్పంబడినప్పుడు, అది-
మిక్కిలి రుచ్యముగానుండు నని యంగడివాండుచెప్పెను, అవికొనుటకు
నైకము లేనందున. అంగడివాండువేటు పనిమీంద నున్నప్పుడు వాండు
గహస్యముగా చేరెందుగింజలను రాశిలోనుండి తీసిజేబులోవేసికొనెను,
వాండు ఇల్లుచేరివంటయింటలోనికింబోయి, జీడిమామిడిగింజలను ప్రాయ
లోంబోసి వానినైన నిప్పులువేసికొనెను, నిప్పులవేడిమిచేత గింజలు
వెంటనేమియు నునుటకాగంభించెను, వాండువానిమీంద నుటే కొన్ని
వేండిబొగ్గులు వెసి లనబలముకొలదినుండ నాగంభించెను, అప్పుడాక
స్థికముగా నొకజీడిగింజల సెద్దప్పునితోనెట్టిపడెను. నొగ్గులు మిక్కిలి
బలము తోవాని ముగము పయిని పడినందున వాండు తనకన్నులు
పోయిన నని తలచుకొని గ్రుడ్డివానివలె నజమమ నిటునటు పరు-
గిత్తెను. నెట్టిపడెడు జీడిగింజలయొక్క ధ్వనిని చాలునియొక్క కేకలను
విని యింటిలోనివారందఱును వంటయింటిలోనికిలబరునెత్తిరి, ఈ పధ
ముగావావానిదొంగలనము పట్టుపడెను, వా నికన్నులు పూర్ణముగా-

కుదురుటకు ముందువాండుగచెప్ప శక్యముకాని బాధపడవలసినవాండ-
యను, తనయదృష్టము చేత వాండు తనదుష్టవర్తనమునకయి పశ్చాత్తాప
పడినాంటి నుండి కుంచి పిల్లవాండయ్యెను.

(b) ఒకకాలమున శ్రుడ్డివాండొకండును చెవిటివాండొకండను 33
ఉండిరి, శ్రుడ్డివాండుతాను విన్నది చెవిటివానికిచెప్పమి, చెవిటివాం-
డుతాను కన్నది శ్రుడ్డివానికి చెప్పమి ఒకర కొకరు సహాయపడుచు-
కాలము గడపుచుండిరి, ఇట్లుండ ఒకపుడు బయట యాత్రచేయవారు
బయలు వెడలిరి, కొంతదూరము పోవునప్పటికి పులయకాలమునలెలుబ్బి
ఆకాశ యంతయు కమ్ముకొనిపెటపెట యని ఉతమెడి యులుములతోను
తళతళనుని మెఱపెడి మెఱపులతోను విస్సువిస్సు యని వీచు కనగు
గాలితోను స్వము కురియుచు భయంకరముగా నుండెను, అటువంటి
వానలొత్పడయుచు చలికి గడగడ వడంకుచు వారందఱు పోవుచుండగా
చెవిటివాండు “ఆబ్బా! యిదెక్కడిమెఱుము, కన్నులు చెదిరిపోవునట్లు
న్నదె యని శ్రుడ్డివానిని పిలిచి వడిగా ననువుము” అనెను, శ్రుడ్డివాండు
“కన్నులుచదరునట్లు మెఱపేమి మెఱయుచున్నదో నాకగపడలేదు-
గాని ఉలుములు మాస్త్రిము కుండె లవియునట్లు మాటిమాటికవిసంబడు-
చున్నవి, లిలమింద పడుకొక్కడపడునోయని పగులుగానున్నది, వేగము
తోపోయి యక్కడవైన కొంతసేపునిలిచిని” అని చెప్పెను, గతుశ్శీతము
దక్షిణాయాత్రవారములొలికొ భవత్పత్నీపేతునయత్ గాతున బలాధ్య-
క్షాత్యక్తగ్యము || ల్యక్షిక్షిద్ధియాత్మవక్త్రములకుఁ భక్షింపవేసెట్లినీ
వక్షప్రక్షిపదక్షితుక్ష గళదోగ్వం బుంజెండాడెను || అబ్జుల్గాం
దలుమేయూదా చనుచుమాయంజెంగి సగ్వాత్తికుం బ్రజ్ఞాలభ్యువగా
న్వయక్రమము లనాభవింపఁగానేరరాజిజ్ఞాసాపథమందుమాఘులు గదా
చింతింప బ్రహ్మదివేదజ్ఞుల్ తత్త్వరమాత్మ విష్ణుని తగుల్బర్చింపఁగానేర్తురే ||

(c) ప్రాంతకరణీయంబులం దీర్చి నివ్యాధిగణం బులఁదాల్చి క్రౌంచ, 35
చేతం బుష్పమాలికంగొని స్వయంవర గంగంబు కుందగచునంబునం-
బొత్తెంచె, గ్రుపదపురాహితుండు నర్పించి యాశీర్వాదంబులొసం-
భవ్యద్యుమ్నం దంతట వాన్యనిష్ఠనముల వారించి, మంటప నుభ్యము

ననిల్చి, ధనుర్పాణనుత్సయంత్రములంజూపి, యీవిల్లు మోపెట్టియీ
 బాణములపైదింట నల్లదే పరిభ్రమింబడంద్రోయు కులబలసంపన్నుండు
 గుహహనీయునకు నాచెలియలేనయ్యాద్రోపది ధర్మపత్ని గాఁగలదని
 చెప్పె. అట్టియెడ ప్రాప్తాణ నుధ్యంబున నిగులు గప్పెన నిప్పువో
 లెవెలంగుచున్న పాండవులంజూచి శ్రీకృష్ణుండు బలరానునకుం
 దెలుప నుండు ప్రతిపూర్వకం బుగవారలంజూచుచుండె, అంతట
 నంతలిరాజులాండోరుల మించంగోరి బలమదమున నాపిల్లు యోపెట్టెం
 దొడంగియదియు నలవిగామిలజ్జా పిపాదములు గడుగందలలువాంచి
 బాణముల సంధింపందొడం, అది గనిరాజులెల్లరు కిక్కుండు ద్రోపదిం
 గొనిపోవునని పొలంచిరి, ద్రోపదియంతటం బెద్దమెలుంగున క్షత్రియనం
 దననగు నేను సూతపుత్రుని పరింపనని పలుక నుండుమింటిం బడవైచి
 లజ్జాక్రొధంబుల నెఱుఁపాతిన యోముతోడం గన్పటిపోయె, అప్పుడు
 ఎల్లరును అబ్బులిపడిచాడ ప్రాప్తాణనుధ్యంబువెడలి యర్జునుండాధ
 నుస్సు డాయపచ్చుచుండె, అప్పుడుకొందఱు పిఘ్రులు సంతసపడివా-
 నినుతానహపటిచిరి, నుతికొందఱు ధనుర్వేద మెల్ల నేర్చిన రాక్షేంద్రులక
 సాధమైనదాని నతిండ్ల సగ్వంజాలుటకు సంశయించి యితండిని పునం
 దగదని పలుకసాగిరి, ఇంకంగతి పయసంఖ్యాకులు కార్యంబు నిర్వహిం
 ప్పభార్యం బుచాలనివాండిప్పున్నికిం దొడంగండు ఆనిరి, ఇట్లుగుసగు-
 సలంబోవువారిమాటలంబా టింపకయగ్గునుండు నిక్తిపూర్వకంబుగ నా
 కోదండమునకుం బ్రదక్షిణ యొనర్చి దేవతలస్తోత్రముచెసిపింటంగేలనేత్తి
 యోపెట్టి సులభిలీలనైదు నారనంబు లోండ్లోంటివెంటపలయ మధ్యం
 బునవెసి లక్ష్యంబు భేదించి పుడమిం దొగలంజేసె, అట్టియెడద్రోపది.
 మాపరాక్రమవంతుండగు ఛిన్నిందటిసి నిజహస్తగతను యదాయంబున
 నతనికం తంబలంకరించె.

ENGLISH.

FIRST PAPER.—PART I (A).

TRANSLATION FROM KANARESE INTO ENGLISH.

The figures in the margin indicate full marks.

Translate into English any two of the following three passages :—

(a) ಬಂದಾನೊಂದು ಕಾಲದಲ್ಲಿ ಗ್ರೀನ್ ದೇಶದಲ್ಲಿ ಮೂರು 35
ಮಂದಿ ಸುಂದರಿಗಳಾದ ಕುಮಾರಿಗಳುಳ್ಳ ಬಬ್ಬ ಅರಸನಿದ್ದನು.
ಅಕ್ಕಂದಿರಿಬ್ಬರೂ ಐಕ್ಯವಂತ ಜನರಿಗೆ ಮದುವೆಮಾಡಲ್ಪ
ಟ್ಟರು ; ಆದರೆ ಎಲ್ಲರಿಗಿಂತಲೂ ಚಿಕ್ಕವಳೂ ಅತ್ಯಂತ ಸುಂದ
ರಿಯೂ ಆದ ಸಾಯ್ಕಿಯು (Psyche) ಮದುವೆಯಾಗದೆ ತಂದೆಯ
ಮನೆಯಲ್ಲಿದ್ದಳು. ಮೊದಲನೆಯಸಲ ಅವಳನ್ನು ಕಂಡಜನರು,
ಇವಳು ಮರ್ತ್ಯಳಲ್ಲ, ಸ್ವಲ್ಪಕಾಲಕ್ಕೆ ಪೃಥಿವಿ ಬಂದ ದೇವತೆ
ಎಂದಂ ಎಣಿಸು ವಷ್ಟು, ಅವಳು ಸುಂದರಿಯಾಗಿದ್ದಳು. ಬಂದು
ದಿವಸ ಸಮುದ್ರದ ಆಚೆಕಡೆಯಿಂದ ಯುದ್ದವೀರನೊಬ್ಬನು
ವೀನಸ್ (Venus) ದೇವತೆಯ ಗುಡಿಯಲ್ಲಿ ಆರಾಧಿಸಲು ಬಂದು,
ಸಾಯ್ಕಿಯನ್ನು ಕಂಡು, ಅವಳು ತನ್ನ ಆರಾಧಕನಿಗೆ ಕಾಣಿಸಿ
ಕೊಳ್ಳಲು ಕೃಪೆಮಾಡಿದ ವೀನಸ್ ದೇವತೆಯೇ ಎಂದು ಎಣಿಸಿ
ದನು ; ಮತ್ತು ಅವಳನ್ನು ಸೌಂದರ್ಯದ ಮಹಾದೇವತೆಯೆಂದು
ಕರೆದು, ಕೆಳಗೆಬಿದ್ದು ಅರಾಧಿಸಿದನು. ಇದನ್ನು ವೀನಸ್ ದೇವ
ತೆಯು ಕೇಳಿದಾಗ, ಅವಳ ಕೋಪವು ನೋಡಲಿಕ್ಕೆ ಭಯಂಕರ
ವಾಗಿತ್ತು ; ಆ ಕ್ಷಣದಿಂದ ಅವಳು ಬಡ ನಿರಪರಾಧಿಯಾದ
ಸಾಯ್ಕಿಯನ್ನು ದೇವಿಸಿದಳು. ಅವಳು ತನ್ನ ಮಗನನ್ನು ಕರೆದು
ಇಡೀ ವೃತ್ತಾಂತವನ್ನು ಅವನಿಗೆ ಹೇಳಿ, ತನಗೆ ಅಪರಾಧಮಾಡಿದ
ಕನ್ನಿಕೆಯನ್ನು ಪೃಥಿವಿ ಹೋಗಿ ಕೊಲ್ಲಲು ಆಜ್ಞಾಪಿಸಿದಳು.
ಆತನು ಹಾಗೆ ಮಾಡಲು ಮಾತು ಕೊಟ್ಟನು ಮತ್ತು ಬಾಣಗಳಿಂದ
ತುಂಬಿದ ತನ್ನ ಬತ್ತಳಿಕೆಯನ್ನೂ ಬಿಲ್ಲನ್ನೂ ತೆಗೆದುಕೊಂಡು

ತನ್ನ ಕ್ರೂರ ಉದ್ದೇಶವನ್ನು ನೆರವೇರಿಸಲು ಪೃಥಿವಿ ಹಾರಿದನು. ಸಾಯ್ಕಿಯು ವಾಸವಾಗಿದ್ದ ಪಟ್ಟಣವನ್ನು ಆತನು ಬೇಗನೆ ಕಂಡು ಹಿಡಿದು, ಅಲ್ಲಿ ಕನ್ನಿ ಕೆಗಾಗಿ ಹುಡುಕುತ್ತಾ ಮಧ್ಯಾಹ್ನದಲ್ಲಿ ಅವಳನ್ನು ಕಂಡನು. ಸಾಯ್ಕಿಯು ಅರಮನೆಯ ತಂಪಾದ ಮತ್ತು ನಿಶ್ಯಬ್ದವಾದ ಉದ್ಯಾನದಲ್ಲಿ ಹಸಿಹುಲಿನಮೇಲೆಗಾಢ ನಿद्रಿತಳಾಗಿ ಬಿದ್ದಿದ್ದಳು. ಅವಳ ಕಾಲಸಮೀಪದಲ್ಲಿ ಆತನು ಇಳಿಯುತ್ತಲೇ ಅವನ ರೆಕ್ಕೆಗಳ ಚಲನವು ಇವಳ ಸುಂದರವಾದ ಕೂದಲನ್ನು ಕದಲಿಸಿತು. ಆತನು ತನ್ನ ಚಲೋದಾದ ಮುಖದಲ್ಲಿ ಕ್ರೂರ ಕಿರುನಗೆಯೊಡನೆ ನಿಸ್ಸಹಾಯಳಾದ ಸಾಯ್ಕಿಯ ಕಡೆಗೆ ನೋಡುತ್ತಾ ನಿಂತುಕೊಂಡನು. ಹಾಗೆ ನಿಂತುಕೊಂಡಿರುವಾಗಲೇ ಅವಳು ಎಚ್ಚತ್ತು ಆತನ ಕಡೆ ಮುಖವನ್ನು ತಿರುಗಿಸಿ ನೋಡಿದಳು. ಆಗ ಅವಳ ಸೌಂದರ್ಯವನ್ನು ನೋಡುತ್ತಲೇ ಮೋಹಿತನಾಗಿ ಅವಳನ್ನು ಕೊಲ್ಲುವ ಯೋಚನೆಯನ್ನು ಬಿಟ್ಟು ಅವಳೊಡನೆ ಮಾತಾಡತೊಡಗಿದನು.

(b) ನಿನ್ನನ್ನು ನೀನೇ ತಿದ್ದಿಕೊ.

35

ಕೆಲವು ವರ್ಷಗಳ ಕೆಳಗೆ ಕಲ್ಕತ್ತಾ ಪಟ್ಟಣದ ಹತ್ತಿರ, ಕೆಲಸದಿಂದ ನಿವೃತ್ತನಾದ ಒಬ್ಬ ಸರದಾರನು ಇದ್ದನು. ಅವನು ಧೈರ್ಯಶಾಲಿಯಾಗಿಯೂ, ನ್ಯಾಯಪರನಾಗಿಯೂ; ಗೌರವವುಳ್ಳವನಾಗಿಯೂ ಇದ್ದನು, ಆದರೆ ಅವನಲ್ಲಿ ಬಹಳ ಬೇಗ ಕೋಪಗೊಳ್ಳುವ ಸ್ವಭಾವವೂ, ಅತ್ಯಾಶೆಯೂ ಇದ್ದವು. ಅವನಹೆಂಡತಿಯು ಬಹಳ ಚೆಲುವೆಯೂ, ಗುಣವತಿಯೂ, ನಿರಹಂಕಾರವುಳ್ಳವಳೂ ಆಗಿದ್ದಳು. ಹೀಗಿದ್ದರೂ, ಪತಿಯು ಯಾವುದಾದರೂ ಇಲ್ಲದ ತಪ್ಪಿತವನ್ನು ಕಂಡುಹಿಡಿದು ಅವಳನ್ನು ಬಯ್ಯುತ್ತಿದ್ದುದರಿಂದ, ಅವಳು ಬಹಳ ವ್ಯಥೆಪಡುತ್ತಾ ಒಂದು ಕಡೆ ಸುಮ್ಮನೆ ಕುಳಿತುಕೊಳ್ಳುತ್ತಿದ್ದಳು. ದಿನೇದಿನೇ ಗಂಡನ ಸ್ವಭಾವಗಳು

ಕುಂದದಿದ್ದರಿಂದ, ಪತ್ತಿಯ ದುಃಖವು ಅಧಿಕವಾಗಿಯೇ ಇತ್ತು. ಬಂದುದಿನ ಸ ಅನೇಕ ದೊಡ್ಡ ಮನುಷ್ಯರು ಮನೆಗೆ ಬಂದಿರುವಾಗ, ಇವನು ನಿಷ್ಕಾರಣವಾಗಿ ಬಹಳ ಕೋಪಗೊಂಡು, ಬಬ್ಬ ಸ್ನೇಹಿತನೊಡನೆ ತನ್ನ ಕೊಠಡಿಗೆ ಹೋದನು. ಅಲ್ಲಿ ಸ್ನೇಹಿತನು ಅವನಿಗೆ ಎಷ್ಟೋ ಸಮಾಧಾನ ಹೇಳಿದನು. ಸ್ನೇಹಿತನು ಹೇಳಿದುದನ್ನೆಲ್ಲಾ ಅವನು ಅಲಕ್ಷ್ಯವಾಗಿ ಕೇಳುತ್ತಾ, ಅವನ ಮಾತುಗಳೆಲ್ಲವೂ ಮುಗಿದನಂತರ ಅವನನ್ನು ನೋಡಿ — “ನೀನು ಏನು ಹೇಳುವೆಯೋ ಅವೆಲ್ಲವೂ ನಿಶ್ಚಯ. ನನ್ನ ಗುಣವು ಸರಿಯಲ್ಲವೆಂದು ನಾನು ಒಪ್ಪಿ ಕೊಳ್ಳುತ್ತೇನೆ ; ಎಷ್ಟೋಸಾರಿ ನಾನು ಶಾಂತಚಿತ್ತನಾಗಿರಬೇಕೆಂದು ಪ್ರಯತ್ನಪಟ್ಟರೂ ಸಾಧ್ಯವಾಗುವುದಿಲ್ಲ ; ನನ್ನ ಹಾಳುಸ್ವಭಾವವು ಯಾವುದಕ್ಕೂ ದಾರಿಕೊಡುವುದಿಲ್ಲ ; ನಾನು ಕೋಪದಲ್ಲಿದ್ದಾಗ ಇಚ್ಛೆ ಬಂದಂತೆ ಮಾಡಿ, ಆಮೇಲೆ ವೃಥಾ ವ್ಯಸನಪಡುವೆನು. ಈ ನಡತೆಯನ್ನು ಸರಿಪಡಿಸಿಕೊಳ್ಳುವುದಕ್ಕೆ ಬಂದುದಾರಿಯಿದೆ. ಅದನ್ನು ನಾನೇ ಕಂಡುಹಿಡಿಯುವೆನು. ಎಂದು, ಕೊಠಡಿಯ ಬಂದು ಕಠೆಯಿಂದ ಇನ್ನೊಂದುಕಡೆಗೆ ತಿರುಗುತ್ತಿದ್ದನು. ಅವನ ಕಣ್ಣುಗಳು ನೆಲವನ್ನೇ ನೋಡುತ್ತಲೂ, ಅವನ ತುಟಗಳು ಮುಚ್ಚಿ ಕೊಂಡೂ ಇದ್ದವು.

ತಿರುಗಾಡುತ್ತಿದ್ದವನು ನಿಂತುಕೊಂಡನು ; ಪೆಟ್ಟಿಗೆಯನ್ನು ತೆರೆದು, ಬಂದು ಸಾವಿರರೂಪಾಯಿಗಳು ಬೆಲೆಬಾಳುವ ಬಂದು ‘ನೋಟು’ ತೆಗೆದುಕೊಂಡನು. ಸ್ನೇಹಿತನು, ಅವನು ಮಾಡುವುದನ್ನೆಲ್ಲಾ ನೋಡುತ್ತಿದ್ದನು. ಅವನು ನೋಟನ್ನುಮಡಿಸಿ ಬಂದು ಮೇಣದ ಬತ್ತಿಯನ್ನು ಹತ್ತಿಸಿ ಅದಕ್ಕೆ ಬೆಂಕಿ ಇಟ್ಟನು. ನೋಟು ಸುಟ್ಟು ಬೂದಿಯಾಯಿತು. ಸ್ನೇಹಿತನು ಅಪ್ಪು ಹಣವು ಅನ್ಯಾಯವಾಗುತ್ತಿರುವುದನ್ನು ನೋಡಿ, ಸರದಾರನ ಕೈಯಿಂದ ಉರಿಯುತ್ತಿರುವ ನೋಟನ್ನು ಕೇಳುವುದಕ್ಕೆ ಹೋದನು. “ನನ್ನನ್ನು ತೊಂದರೆಪಡಿಸಬೇಡ ; ನನ್ನ ದ್ರವ್ಯಸಪ್ತವಾಗುವುದರಿಂದಲಾದರೂ

ನನ್ನ ಕೆಟ್ಟನಡತೆಯನ್ನು ಸರಿಪಡಿಸಿಕೊಳ್ಳುವೆನು.” ಎಂದು ಅವನಿಗೆ ಫೇಳಿದನು. ಸ್ನೇಹಿತನು :—“ಇಂದಿನಿಂದ ನಿನ್ನ ಮಾತನ್ನು ನಡೆಯಿಸಬೇಕು” ಎಂದನು. ಅಂದಿನಿಂದ ಸರದಾರನು ಬಳ್ಳೆಯ ಸ್ವಭಾವವನ್ನು ಕಲಿತುಕೊಂಡನು. ಒಂದುವೇಳೆ ಅವನಿಗೆ ಕೋಪ ವೇರಿದರೆ, ಪೆಟ್ಟಿಗೆಯನ್ನು ತೆರೆದು ನೋಟು ಹುಡುಕಿ ಅದು ನಾಶ ವಾದುದನ್ನು ಜ್ಞಾಪಿಸಿಕೊಂಡು ಸುಮ್ಮನಾಗುತ್ತಿದ್ದನು. ಹೆಂಡ ತಿಯನ್ನು ಬಯ್ಯುವುದನ್ನು ಬಿಟ್ಟುಬಿಟ್ಟನು.

(೧) ಎರಡು ಸರಿಗಳು ಒಂದು ಕೋಳಿಯಗೂಡನ್ನು ಹೊಗು 35
ವುದಕ್ಕೆ ಒಂದು ಯುಕ್ತವಾಡಿ ಅದನ್ನು ಸಾರ್ಥಕವಾಗಿ ನೆರವೇ ರಿಸಿದುವು. ಅವು ಹುಂಜವನ್ನೂ ಹೇಂಟೆಗಳನ್ನೂ ಕೋಳಿಯ ಮರಿಗಳನ್ನೂ ಕೊಂದು ಬಳಿಕ ಇಜ್ಜಾ ಪೂರ್ತಿಯಿಂದ ಅವುಗಳನ್ನು ತಿನ್ನುವುದಕ್ಕೆ ಆರಂಭಿಸಿದುವು. ಆ ಸರಿಗಳಲ್ಲಿ ಚಿಕ್ಕದಾದ ಮತ್ತು ತಿಳಗೇಡಿಯಾದ ಒಂದು ಅವುಗಳನ್ನೆಲ್ಲಾ ಆ ಸ್ಥಳದಲ್ಲೇ ತಿನ್ನಬೇ ಕೆಂದಿತ್ತು. ಮುದಿ ಮತ್ತು ಲೋಬಿಯಾದ ಮತ್ತೊಂದು ಅವು ಗಳಲ್ಲಿ ಕೆಲವನ್ನು ಮತ್ತೊಂದು ಸಮಯಕ್ಕೆ ಇಟ್ಟುಕೊಳ್ಳಲು ಅಪೇಕ್ಷಿಸಿತು. ಆದುದರಿಂದ ಅದು ಹೀಗೆಂದಿತು—“ಓ ಮಗುವೇ, ಅನುಭವವು ನನ್ನನ್ನು ಬುದ್ಧಿವಂತ ನನ್ನಾಗಿ ಮಾಡಿದೆ; ಮತ್ತು ಈ ಲೋಕಕ್ಕೆ ಬಂದಂದಿನಿಂದ ಅನೇಕ ಆಕಸ್ಮಿಕ ಕಾರ್ಯಗಳ ನ್ನು ನೋಡಿದ್ದೇನೆ. ಆದುದರಿಂದ ಮುಂದಕ್ಕೆ ಏನಾದರೂ ಆಗದ ಹಾಗೆ ಹಂಚಿಕೆಮಾಡುವ, ಮತ್ತು ಒಂದೇ ಉಟಕ್ಕೆ ನಮ್ಮ ಸಂಗ್ರಹವನ್ನೆಲ್ಲಾ ತಿಂದುಬಿಡಿದೆ ಇರುವ.” ಅದಕ್ಕೆ ಚಿಕ್ಕ ಸರಿಯು ಹೀಗೆ ಉತ್ತರಕೊಟ್ಟಿತು. “ಇದೆಲ್ಲಾ ಅದ್ಭುತಬುದ್ಧಿವಂತಿಕೆಯೇ ಸರಿ, ಆದರೆ ನಾನಾದರೋ ಪೂರಾ ಒಂದು ವಾರಕ್ಕೆ ನನಗೆ ಸಾಕಾ ಗುವಷ್ಟು ತಿನ್ನು ವವರೆಗೆ ಕದಲುವುದಿಲ್ಲ ವೆಂದು ನಿಶ್ಚಯಿಸಿ ಕೊಂಡಿರುತ್ತೇನೆ. ಯಾಕೆಂದರೆ ಈ ಕೋಳಿಗಳ ಯಜಮಾನನು ನಾಳೆ ನಮ್ಮನ್ನು ಕಾದುಕೊಂಡಿರುವುದು ನಿಶ್ಚಯವು. ಆಗ

ಆತನು ನಮ್ಮನ್ನು ಹಿಡಿದರೆ ಬಂಡಿತವಾಗಿ ನಮ್ಮನ್ನು ಮರಣಕ್ಕೆ
 ಗುರಿಮಾಡುವನು. ಆದುದರಿಂದ ನಾಳೆ ಇತ್ತ ಕಡೆಗೆಯಾರು ತಾನೇ
 ತಿರುಗಿಬರುವಷ್ಟು ಹುಚ್ಚು ನಾಗಿರುವನು ?” ಈ ಸಂಕ್ಷೇಪಸಲ್ಲಾ
 ಪದನಂತರ ಪ್ರತಿಯೊಂದು ನರಿಯು ತನ್ನ ಸ್ವಂತ ಉಪಾಯವನ್ನು
 ಅನುಸರಿಸಿತು. ಚಿಕ್ಕನರಿಯು ತಾನು ಬಿರಿಯುವಷ್ಟು ತಿಂದು ತನ್ನ
 ಬಿಲಕ್ಕೆ ಸಾಯುವುದಕ್ಕೆ ಮೊದಲು ಮುಟ್ಟುವುದಕ್ಕೆ ಬೇಕಾದಷ್ಟು
 ತ್ರಾಣಮಾತ್ರ ಉಳ್ಳದ್ದಾಗಿತ್ತು. ತತ್ಕಾಲಕ್ಕೆ ತನ್ನ ಆಹಾರಾಶೆಯನ್ನು
 ತಿರಸ್ಕರಿಸಿ ಮುಂದಿನಕಾಲಕ್ಕೆ ಆಹಾರ ಸಂಗ್ರಹಮಾಡಿ ಕೂಡಿಸಿ
 ಡುವುದು ಉತ್ತಮವೆಂದು ಆಲೋಚಿಸಿದ ಮುದಿನರಿಯು ಮರು
 ದಿವಸ ತಿರುಗಿ ಬಂದು ಬಕ್ಕಲಿಗನಿಂದ ಕೊಲ್ಲಲ್ಪಟ್ಟಿತು.

ENGLISH.

FIRST PAPER.—PART I (A).

TRANSLATION FROM MALAYALAM INTO ENGLISH.

The figures in the margin indicate full marks.

Translate any two of the following passages into English :—

1. നമ്മുടെ മനസ്സ് ഈ ഭൂതമനുഷ്ഠാലയമാകുന്നു. നമ്മുടെ ഹൃദയത്തെ ദരിദ്ര ഉരുണിക്കൊണ്ടു പരേതനെന്നുണ്ടെങ്കിൽ വല്ലപ്പോഴും ചെയ്യുന്ന ഒരു അത്യാവസ്ഥാൽ സ്ഥിതിചെയ്യുന്ന കരുതിപ്പോകുന്നു. ഇതിന്നു സദാ ഉദ്ദിഷ്ടാൽ ചാത്രമെ സ്ഥിതിചെയ്യട്ടെ. ഒന്നാമതു നാം നമ്മുടെ ഹൃദയത്തിൽ നിന്നു തോപം, അപൂർവ്വ, ദുഷ്ടചാർത്തുവെച്ചിട്ടുള്ള ചിന്ത, ദോഷദാഗ്ദ്ധ്യം ഉണ്ടിട്ടുള്ള ആഗ്രഹണീയമെല്ലാം കഴിഞ്ഞു. ഒഴികേ ബുദ്ധിമുട്ടും. ഒന്നാമതു, ചെറുകിടമുറകൾ നാം കണ്ടാൽ പ്രവൃത്തി, ചെയ്യുന്നവെ ആപ്രവൃത്തി നിർമ്മിച്ച പരമ നമ്മുടെ മനസ്സ് അതിൽ നന്നെ ഉണക്കിയിരിക്കും. അതല്ലാതെ വേറെയും ചിന്തിക്കാതെ തുടരും. ചെട്ടേണ്ടതാകുന്നു.

ii. വിദേശദാരിദ്ര്യത്തിന്റെ പശ്ചാത്താപം സഹിക്കാൻ പറ്റാത്തവർ ഈ പാഠപുസ്തകസമ്പ്രദായം, മാതൃദാരിദ്ര്യം അനുകരിച്ചു ചെയ്യുന്നതു, മാതൃദാരിദ്ര്യം അഭിവൃദ്ധിപ്പെടാൻ പറ്റാത്തവർ ഉത്തമനായും ഈ പുസ്തകങ്ങളിൽ ഗവ്യദിനിയം, മലാരിയം, അതു. ആശ്ചര്യമായിരിക്കുന്നതും. മാതൃദാരിദ്ര്യം ജീവനും ചുണ്ടും അറിയുന്നതിലേക്കും, ചെറുകിടമുറകളെ നയിക്കുന്നതെല്ലാം. അതു സഹായം, സഹായം, മൃതദായം ഗവ്യദിനിയം

દેવાલયો, પાઠશાળા, લાયબ્રેરી, નાટ્ય મંડપ, રંગમંડપ, મંદિર

તથા ખીજાં સરકારી મકાનો ખાનગી તથા બેંગલાઓ તથા યુરોપીયન લોકોની મોટી મોટી ઉજાડાઓ ઉજાડામાં તે પ્રાંતમાંના કેટલાક રાજાઓ અને જમીનદારો તથા સરત શિકારના શોખીન લોક અહીં ઘણા બેગા થાય છે. તે ઉપરાંત હજારો લોકો અહીં હવા ફેર માટે જ આવે છે. અહીં મુખ્યતઃ રોમન કેથોલીક તથા ઇતર પંથના ખ્રીસ્તી સ્ત્રી પુરૂષોની ઘણી વસ્તી છે.

2. ભાવનગરની હવા બગડેલી હોવાથી અમારી કંપની 35 ત્યાંથી એકદમ ઉપડીને કરાંચી આવી હતી. આ શહેર મોટું હોવાથી તથા ત્યાં મારે પહેલી વાર જ જવાનું થવાથી હું કોઈને ઓળખતી ન હોતી અને અમારી કંપનીના લોકો સાથે જ વસવાનું મને અનકુલ ન હોતું તેથી જોકે તરતનો તેમની ભેગા રહ્યાવિના છુટકારો ન હોતો તોપણ આજકાલના વખતમાં હું કોઈ આબરૂદાર પાડોશીઓના સહવાસમાં કોઈ સાફ મકાન મળે તો તેની તપાસમાં રહેતી. મારી સાથે નાટકશાળાનો એક માણસ હતો, તેને હું કોઈ કોઈ ઘર મને ઠીક જણાતું તો તેના સંબંધી તપાસ કરવા શેરીની અંદર મોકલતી ને હું તાં કલ્પના બહાર ના બાગમાં જ ઉભી રહેતી. એક દીવસ સાંજના છ વાગ્યાને સુમારે આમ મેં તે માણસને કોઈ ખાલી મકાન મને લેવા જેવું લાગ્યું તેની તપાસ કરવા મોકલ્યો હતો.

3. ટ્રેનીંગ કાલેજમાંથી પાસ થઈને નીકળેલા શીક્ષકોનો 35 કાર્ય સંતોષ કારક નથી નીવડતું તેનું કારણ શું? એ આપણો

સવાલ છે. ફરીથી એક વાર કહું છું કે અત્યારના શીક્ષક સમુદાયને હું કોઈ રીતે ગેર ધનસાફ કરવા નથી માંગતો, તેમને કોઈ રીતે હલકા પાડવા નથી ઇચ્છીતો. શીક્ષકના ધંદાના માટે મને ઘણું માન છે. અને શીક્ષકોના સુખ દુઃખ માટે મને ઘણું સહાનુભાવ છે. આપણે બધા થોડે ઘણે અંશે આપણે દેશકાલનીજ પ્રજા છીએ અને અત્યારનો દેશ કાલમાં જે વર્ગમાંથી આ શીક્ષક સમુદાય નીપજવવામાં આવ્યો. તે જોતાં તેમનું કામ અસંતોષકારક હોવાનું દોષ તેમને માથે મુકી શકાય તેમ નથી છતાં મી. ખરેખરા અભીપ્રાયની વાસ્તવિકતા સ્વીકારવા જેવી છે, એ વાત ઉપર સર્વેનું, શીક્ષકોસુદ્ધાનું, ધ્યાન દોરવું જોઈએ, અને તેના ઉપાય શોધવા માટે આપણે મેહનત કરવી જોઈએ.

ENGLISH.

FIRST PAPER.—PART I (A).

The figures in the margin indicate full marks.

Translate any two of the following passages :—

1. લગ્નાર્થે નાંવ એકતાંચ વ્રજવિલાસિનીચ્ચા હોલ્લાતૂન અશ્રુ 35
વાહું લાગલે, પરંતુ તી આપલે દુઃખ આવરુન દ્વણાલી, યાચે ઉત્તર
મી પુઠેં કઘોંતરી વેઈન. સામગ્રા રામાયણાચી કથા મોઠી દુઃખજાયક
આદે, તી એકૂન તુજાંલા વાઈન વાઠેલ. મલા યાવેલોં તમા કરાવી.
ત્યા દિવસાપામૂન વ્રજવિલાસિની તેથેંચ રાહું લાગલી. સંકૃતાંત
તિચી ઘાંગલી ગતી હતી. સંકૃત સુભાષિતાંચીહી તિલા ફાર મોહી
હોતી. તી નિત્ય ત્યા કોઘો રાજકુમારોંના સંકૃત ભાષેંતોલ ગદ્ય-
પદ્યાત્મક નિવડક ભાગ વાચૂન રાખતોત અસે. તિચી વિદ્વતા વ

विषय सांगण्याची पद्धति इतकी उत्तम होती की, त्या योगाने हलुहलू त्या राजकन्यांच्या मनांत तिजविषयी आदर व प्रेम उत्पन्न झाले, व आपला भेदभाव तुर ठेवून ब्रजविलासिनींशी त्या अगदी सखीप्रमाणे बरोबरीने वागू लागल्या !

2. मुलांनी पहिल्या प्रथम ही गोष्ट लक्षांत ठेवावयास पाहिजे की, आपण सर्वचजण वयाने कितीही मोठे असलो तरी मुलेंच आहोत-आपल्या आईबापांनी आपणांस जन्म दिला आहे. ज्यांना या देशांमधील किंमत कलत नाही असे बरेच लोक अलीकडच्या कालांत आहेत ही गोष्ट मी जाणूच आहे. “जगणें योग्य आहे काय ?” या विषयावर पुस्तकेंही झालेली आहेत. जगणें कल्याणकारक आहे की नाही यांबद्दलच सध्यां मतभेद आहे ; परंतु मला तें कल्याणकारक आहे याविषयी संदेह वाटत नाही. या गोष्टीचा मी दोन भिन्न दृष्टींनी विचार करतो. मरणोत्तर मनुष्य जिवंत रहातो असा माझा विश्वास आहे. ही गोष्ट खरी असल्यास आईबापांच्याद्वारा आपणास अमरत्व साध्य होत असेच झटलें पाहिजे. कोणत्याही स्थितींत आपला जन्म झाला असला तरी आपली उत्तरोत्तर वाढ होत जाऊन, कोणत्याही संकटांना न जुमानतां आपण पूर्णत्वाप्रत पोहोचणार यांत संशय नाही. आणि ही बहूमोल देणगी आईबापांमुळे मुलांना लाभत असते.

3. माझा लहानपणीं नगर जिल्ह्यांतील शेवगांव या तालुक्याच्या ठिकाणीं माझे वडील राहत असतां मी पुष्कळ वेलां शेवगावें गेलें होतें, व सतत दीड दोन वर्षे पर्यंत एका एका खेपेस राहिलें होतें. शेवगांव हा तालुका जरा २५० गांवांचा मोठा आहे, तरी खुद्द गांव लहानच आहे. मूल गांव मुसलमानी वस्तीचा व मुसलमानी असल्यामुळे गांवची वस्ती हिंदुपेक्षां मुसलमानांचीच जास्त आहे, व हिंदुदेवळांच्या संख्येपेक्षां मशिदींची संख्या जास्त आहे. व तेथील खोनामीयां या पौराणा हिंदु व मुसलमान सारखेच भजतात ! ! सन १८७१-७२ चे सुमारास मी तेथें होतें. तेथें गेल्यावर गावांत बघण्याजोग्या वस्तु काय काय आहेत असे विचारितां गौरीशंकराची बातमी लागली, व आपणा येथें लवें वास्तव्य होतें ते सहस्य येऊन

त्यानीं गौरीशंकर पाहावयाचें बोलावणें केलें. कोणीही नवा अधिकारी आला नाहीं, त्याला बोलावणें करून गौरीशंकर हाकडिण्याचा त्याचा नेहमींचा क्रम असे; त्या क्रमाप्रमाणें तो ग्रामचेकडे येऊन त्यानें आह्मांच बोलावणें केलें.

ENGLISH.

FIRST PAPER.—PART I (A).

BURMESE INTO ENGLISH.

The figures in the margin indicate full marks.

Translate any two of the following passages into English :—

1. ငါသည် ဦးပြည်းရိတ်သဖြင့်။ ဖန်ရည်စွန်းသော 35
 ဒုက္ခနှင့် သင်္ကန်းကိုရှုံ့၍ သပိတ်လက်စွဲလျက်။ အဘယ်အ
 ခါမှ ဆွမ်းခံဆွမ်းစား သွားရပါ အံ့နည်း။ ခရီးလမ်းတို့၌
 သူတို့အသုံးမဝင်၍။ စွန့်ပစ်လေပြီးသောအဝတ်တို့ကိုပံ
 သုကူကောက်ယူသဖြင့်။ သင်္ကန်းဒုက္ခနှင့်ချုပ်သိုး၍။ အဘ
 ယ်အခါမှဝတ်ရုံရပါအံ့နည်း။ ရက်လည်နေ့စပ်။ မပြတ်
 ရွာသောမိလားကြီးထဲ၌။ သင်္ကန်းစွတ်မိုး။ အဘယ်အခါမှ
 ဆွမ်းခံရပါအံ့နည်း။ ငါသည် ထိုထိုသို့သောအရပ်တို့သို့
 သွား၍။ တတောမှလျှင်။ တတောဝင်လျက်။ သစ်တပင်
 နား။ ဝါးတရုံရိပ်။ စိတ်ကြောင့်ကြမဲ့။ ဇွဲကွက်လွတ်ရှင်း။
 တကိုယ်ချင်းဖြင့်။ သိတင်းမြို့ဆွစွာသောဗြဟ္မစရိုက်ကို။
 အထိုက်အဘယ်အခါမှ။ ဖြည့်ဆောင်ရပါအံ့နည်း။ ငါသ
 ည်ဟိမဝန္တာတော၌။ တကုန်းပြောင်းတက်။ တကုန်းသ
 က်၍။ ကြောက်မက်သွယ်ရန်။ ဘေးဒဏ်မခံမြှီ။ အတော်
 မပါစေ။ အဘယ်အခါမှသွားရပါအံ့နည်း။

2. မြို့တံခါး၌ထွက်ကုန်ဝင်ကုန်သောမိန်းမကြီးငယ်တို့ 35
သည်။ မြတ်သောအဆင်းအသရေဖြင့် ရပ်နေသောမန္တ
ဒေဝီကိုမြင်လျှင်။ သိချင်ကျွမ်းချင်မေးမြန်းချင်သောနှလုံး
ဖြင့်။ ဂုဏ်းဝန်းရံလျက် ရှုကြည့်မေးမြန်းကြ၏။ မန္တဒေဝီသ
ည်လည်း မျိုးမည်နေရပ်။ အတ္ထုပ္ပတ္တိအလုံးစုံကို အလှူပြန်
ပြောပေ၏။ ပြည်သူတို့သည် မိမိတို့သခင်။ ရွှေနန်းရှင်
သွီးတော်ဖြစ်ကြောင်းကိုသိ၍။ ရွှေနန်းသခင်အရှင်ဗိဇယား။
သခင်မတို့သည် စေတုတ္ထရာ။ ပြည်သာရိပ်ငြိမ်။ နန်းစည်း
စိမ်၌။ မွေ့သိပ်ညံ့။ လဲဝါရမကသောခြေတော်ဖြင့်။
မြေပေါ်မနင်းစဖူး။ ထူးမြတ်ဆန်းကြယ်စွာ။ ရတနာသံ
လျှင်းရွှယ်ဥဒ္ဓေါဖြင့်သာ ထွက်စံဘော်မူမြဲဖြစ်လျက်။
ယခုညွှတ်သောခြေတော်ဖြင့် မြေပေါ်ချနင်း၍။ အပြင်း
အပြကြွတော်မူခဲ့ရသည်။ ပင်ပန်းထွဟန်တကားဟူသနား
စုံမက်သဖြင့်။ မျက်ရည်စက်ယို။ ငိုကြွေးကြလျက်။ မေး
မြန်းပြောဆို၍။ ဆွေတော်မျိုးတော် မင်းမြှောက်သောင်း
တို့အား။ အကြောင်း အချင်းကို။ မကြွင်းမကျန်။ ပြန်ကြား
လျှောက်ထားကြကုန်၏။

3. သုနန္ဒာရထားမှူး။ အကြင်သူသည် အဆွေခင်ပွန်း 35
တို့အား ပြစ်မှားခြင်းကိုမပြုအံ့။ ထိုမပြစ်မှားသောသူ
သည် တစုံတခုသောဘေးရန်တို့ကြောင့်။ မြင့်စွာသော
တောင်ကမ်းပါးပြတ် သစ်ပင်ထက် စသည်တို့မှကျသော်
လည်းကောင်း။ မြင့်မြတ်သောစည်းစိမ်ချမ်းသာတို့မှ
ရွေ့ရှားယုတ်လျော့သော်လည်းကောင်း။ အဆွေခင်ပွန်း
ကောင်းတစုံတယောက်။ အထောက်အပံ့ကိုရသဖြင့်။

ချမ်းသာစွာအသက်ရှင်မှုလည်းရှင်ရ၏။ အဆွေခင်
ပွန်းကောင်း အထောက်အပံ့ကိုမရသည်ဖြစ်၍။ ထိုက
မ်းပါးပြတ်တောင်သစ်ပင်စသည်ထို့မှ ကျလျှောသဖြင့်
သေရသော်လည်း။ တမလွန်ဘဝ၌ သုဂထိဘဝတည်း
ဟူသော ကိုးကွယ်ရာခိုင်ရာအရပ်ကောင်းကို ရ၏။
အဆွေခင်ပွန်းထို့အားပြစ်မှားသောသူထို့ကဲ့သို့။ ငှေးငှေး
သောအကုသိုလ်ကံကြောင့်။ မကောင်းသဖြင့်ထွေကြိမ်
ရသော်လည်း။ ပစ္စုပ္ပန် သံဘရာတို့၌ ကိုးကွယ်ရာမဲ့
မည်သည်မဖြစ်နိုင်ရာ။ ထို့ကြောင့် သင်ရထားမှူး သည်
လည်း။ အဆွေခင်ပွန်းစစ်ဖြစ်သောငါ့အားမပြစ်မှားလင့်
ဟုတေမိမင်းသားသိလေ၏။

ENGLISH.

FIRST PAPER.—PART I (A).

TRANSLATION FROM FRENCH.

*Candidates are required to give their answers in their own words
as far as practicable.*

*Translate into English any two of (a), (b), (c) and (d); each piece
carries 35 marks.*

(a) *The rapidity with which things change in our century :—*

Oh, je le sais. dans le tourbillon accéléré qui entraîne le monde et les sociétés modernes, tout change, tout s'agrandit et se modifie incessamment. Des formes nouvelles de talents se produisent chaque jour; toutes les règles, d'après lesquelles on s'était accoutumé à juger les choses mêmes, de l'esprit, sont déjouées; l'étonnement est devenu une habitude: nous marchons de monstres en monstres. Le vrai d'hier, déjà incomplet ce matin, sera demain tout à fait dépassé et laissé derrière. Les moules, fixés à peine, deviennent aussitôt trop étroit et insuffisants. Aussi, j'y ai souvent pensé: de même qu'autour d'un vaisseau menacé d'être pris par les glaces, on est occupé incessamment à briser le cercle rigide qui menace de l'emprisonner, de même chacun à chaque instant devrait être occupé à briser, dans son esprit, le moule qui est près de prendre et de se former.

(b) *An Army on the march :—* Enfin, le cinquième jour, vers dix heures du soir, nous entrâmes à Mayence. Tant que je vivrai, ce souvenir me

restera dans l'esprit. Il faisait un froid terrible. La nuit était venue; le ciel fourmillait d'étoiles. Tout le monde regardait, et l'on se disait : Nous approchons ! car au fond du ciel une ligne sombre, des points noirs et des aiguilles étincelantes annonçaient une grande ville. Enfin nous entrâmes dans les avancées, à travers des bastions de terres en zigzag. Alors on nous fit serrer les rangs et nous continuâmes mieux au pas, comme il arrive en approchant d'une place forte. Au coin d'une espèce de demilune, nous vîmes le fossé de la ville plein de glace, les remparts en brique au-dessus, et en face de nous, une vieille porte sombre le pont levé. Alors nous fûmes dans la ville, pavée de gros cailloux luisants. Malgré la nuit, toutes les auberges, toutes les boutiques des marchands étaient ouvertes; leurs grandes fenêtres brillaient, et des centaines de gens allaient et venaient comme en plein jour.

(c) *The Crusaders before Jerusalem*. — Chaque jour ajoutait aux maux que souffraient les croisés; chaque jour les feux du midi devenaient plus ardents; l'aurore n'avait plus de rosée, la nuit plus de fraîcheur. Les plus robustes des guerriers languissaient immobiles dans leurs tentes, implorant la pluie des orages ou les miracles par lesquels le Dieu d'Israël avait fait jaillir une eau rafraîchissante des rochers du désert. Tous maudissaient ce ciel étranger, dont le premier aspect les avait remplis de joie et qui, depuis le commencement du siège, semblait verser sur eux toutes les flammes de l'enfer. Les plus fervents s'étonnaient surtout de souffrir ainsi à l'aspect de la ville du salut, mais ne perdant rien de leur enthousiasme, on les voyait quelquefois se précipiter vers les remparts de la cité de Dieu, et baiser avec transports des pierres insensibles, en s'écriant : O Jerusalem ! reçois nos derniers soupirs; que tes murailles tombent sur nous et que la sainte poussière qui t'environne recouvre nos ossements !

(d) *The little hills are jealous of the great mountains*. —

Un jour au mont Atlas les Collines jalouses
Dirent : Vois nos prés verts, vois nos fraîches pelouses,
Où vient la jeune fille, errant en liberté,
Chanter, rire et rêver après qu'elle a chanté,
Nos pieds que l'Océan en grondant à peine,
Le Sauvage Océan ! Notre tête sereine
A qui l'été de flamme et la rosée en pleurs
Font tant épanouir de couronnes de fleurs !
Mais toi, géant ! — d'où vient que sur ta tête chauve
Planent incessamment des aigles à l'œil fauve ?
Qui donc, comme une branche où l'oiseau fait son nid,
Courbe ton large épaule et ton dos de granit ?
Pourquoi dans tes flancs noirs tant d'abîmes pleins d'ombre ?
Quel orage éternel te bat d'un éclair sombre ?
Qui t'a mis tant de neige et de rides au front ?
Et ce front où jamais printemps ne souriront,
Qui donc le courbe ainsi ? quelle sueur l'inonde ?
Atlas leur répondit ; c'est que je porte un monde.

ENGLISH.

FIRST PAPER.—PART I (B).

ESSAY.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Write an essay on *one* of the following subjects:— 15
 - (a) Compulsory military training.
 - (b) How you have occupied yourself during the last few months.
 - (c) The uses and abuses of a debating society.
2. Write an essay on *one* of the following subjects, following the 15
general plan suggested:—
 - (a) *Self-help*—"every man shall bear his own burden"—the habit of self-help—at home—at school—in games: the value of self-help—the pleasure of self-help—general reflections.
 - (b) *An Indian thunderstorm*—how you came to be where you were when the storm began—the weather conditions preceding the storm—what first attracted your attention to it—its progress—its effects—concluding remarks.
 - (c) *Any place of historical interest which you have visited*—its sources of interest—in the past and in the present—its geographical position—a general account of any historic building or remains it may possess—concluding reflections.

ENGLISH.

SECOND PAPER.

Head Examiner—T. S. STERLING, Esq., M.A.

<i>Examiners</i> —	MR. T. P. WHITMORE, M.A.
	BABU JYOTSNAMOY BASU, M.A.
	BABU PRAPHULLAKUMAR DAS, M.A.
	MR. J. A. SMITH.
	BABU BAMACHARAN BANERJEE, M.A.
	BABU HARENDRACHANDRA CHAKRABARTI, M.A.
	BABU SUKHARANJAN RAY, M.A.
	BABU PHANINDRANATH LAHIRI, M.A.
	BABU JITENDRANATH CHATTERJEE, M.A.
	MR. W. W. HENDERSON, M.A.
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	BABU NANIGOPAL BHATTACHARYYA, M.A.
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	BABU BATUKNATH BHATTACHARYYA, M.A.
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Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Give in simple English the substance of any *two* of the following passages:—

(a) I remember to have once seen a slave in a fortification in Flanders, who appeared no way touched with his situation. He was 20

maimed, deformed, and chained, obliged to toil from the appearance of day till nightfall, and condemned to this for life; yet, with all these circumstances of apparent wretchedness, he sung, would have danced, but that he wanted a leg and appeared the merriest, happiest man of all the garrison. What a philosopher was here! Though seemingly destitute of wisdom, he was really wise. Everything furnished him with an opportunity of mirth; and though some thought him from his insensibility a fool, he was such an idiot as philosophers might wish in vain to imitate.

(b) The Santals preserve two features of an early stage of civilisation. Though now for the most part settled cultivators, they excel in clearing forest and have especial skill in converting jungle and waste land into fertile rice fields. When through their own labour the spread of cultivation has effected denudation, they select a new site, however prosperous they may have been on the old, and retire into the backwoods, where their harmonious flutes sound sweeter, their drums find deeper echoes, and their bows and arrows may once more be utilized. In the second place, they are ardent hunters, as destructive of game as of jungle. The happiest day in the year is that on which they have a common hunt, when, armed with spears, axes, bows and arrows, clubs, sticks and stones, they beat through the jungle in thousands, killing every beast and bird they come across. In their ordinary dealings they display a cheerfulness which is refreshing to a European accustomed to the somewhat gloomy denizen of the plains. Their word is their bond, and a knot on a string is as good as a receipt. They are plucky to a degree.

(c) It has been said that half the sorrows of life are included in the little words "Too late." It would be easy, looking only at the outside of things, to make especial application of this truth—easy to moralise on the vanity of human wishes and to show that our friend had clutched a bauble, which he had yearned for all his life, when he was past the power of enjoying its possession. But they who have read aright the character of the man will make no such application of the saying. If he had died that night the honours conferred upon him by the Crown would not have come too late. They would not have come too late to assure him that sooner or later, such honesty of purpose, such fidelity to the throne, such love for the people as had distinguished his career, will secure their reward. They would not have come too late to encourage others, and to be a lesson to the world.

2. Give in your own words the substance of *one* of the following:— 20

- (a) The tree may fall and be forgotten
And buried in the earth remain;
Yet from its juices rank and rotten
Springs vegetating life again.
The world is with creation teeming,
And nothing ever wholly dies;
And things that are destroyed in seeming
In other shapes and forms arise.

* * * * *

Not a work but has its issue,
With blessing or with evil fraught.

- (b) They tell us of an Indian tree
Which, howsoever the sun and sky
May tempt its bows to wander free
And shoot and blossom wide and high,

Far better loves to bend its arms
 Downwards again to that dear earth.
 From which the life that fills and warms
 Its grateful being first had birth.
 'Tis thus though wooed by flattering friends
 And fed with fame (if fame it be),
 This heart, my own dear mother, bends
 With love's true instinct back to thee.

3. Write a short story to illustrate the maxim that prevention is better than cure. 10

4. Change the following into the indirect form of speech:—I cannot help thinking you are bound north on the same business as myself—which is, I confess to you honestly, to strike a blow for the king. If you are on the same errand, I have two old relations who are staunch to the cause, and I am going to their house to remain until I can join the army. If you wish it, you shall come with me, and I will promise you kind treatment and safety while under their roof. 6

5. Construct short sentences to illustrate the difference in meaning between any three of the following pairs of words:—corporal, corporeal; comprehensive, comprehensible; officious, official; verbal, verbose. 6

6. Distinguish between the two plurals of:—index, fish, brother. 6

7. Write sentences introducing each of the following words (a) as an adjective, (b) as an adverb:—*first, early, better*. 6

8. (a) Parse the words italicised in the following:— 6

(i) He is fond of *playing* cricket.

(ii) He loves the *singing* of birds.

(iii) They made him *king*

(b) Construct short sentences using an appropriate preposition after any *three* of the following:—

Congenial, eligible, prodigal, superior.

MATHEMATICS.

COMPULSORY PAPER.

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BABU SARATCHANDRA RAYCHAUDHURI, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

In awarding marks, neatness of diagrams will be taken into account.

1. (a) Multiply 783256 by 347816. 5

Or,

The quotient after division of a certain number by 372 is 273 and the remainder is 237. Find the number. 5

- (b) Find the G.C.M. of 31752 and 41580. 5

Or,

The circumferences of the fore-wheel and hindwheel of a carriage are 9 ft. 11 in. and 12 ft. 9 in. respectively. Find the least distance over which the carriage must travel in order that both the wheels may make a complete number of revolutions. 5

2. (a) Simplify $\frac{\frac{5}{3} + \frac{2}{3}}{\frac{1}{2} + 2\frac{5}{12}} + \frac{1}{3\frac{1}{11}}$. 5

Or,

Find the value of 5

$$\frac{1}{3} \text{ of } 9s. 10d. - \frac{1}{4} \text{ of } 6s. 9d. + \frac{1}{6} \text{ of } £1 0s. 7d.$$

(Express the answer in shillings and pence.)

- (b) Simplify $\frac{.1701 \div 16.2}{.005 \times .07}$. 5

Or,

Reduce $\frac{7}{12}$ to recurring decimals. 5

3. (a) Find the cost of 21 tons 5 cwt. 3 qrs. of coal at Rs. 5 per ton. 5

Or,

Find the simple interest on Rs. 892 for 8 months at $6\frac{1}{4}$ per cent. per annum. 5

(b) By selling goods at Rs. 240 a merchant gains 25 per cent. How much would he gain per cent. by selling them at Rs. 216? 5

Or,

In an examination 52 per cent. of the candidates fail in English and 42 per cent. fail in Mathematics. If 17 per cent. fail both in English and Mathematics, find the percentage of those who pass in both subjects. 5

4. (a) Multiply $a^2 - ab + a + 1$ by $a + b - 1$. 5

Or,

Divide $a^4 - 6a - 4$ by $a - 2$. 5

- (b) Find the H. C. F. of 5

$$x^3 - 7x + 6 \text{ and } x^3 - 3x^2 + 4.$$

Or,

Find the L. C. M. of

$$x^2 + x - 6, x^2 + 2x - 3 \text{ and } x^2 - 3x + 2.$$

5. (a) Draw the graph of $2x + 3y = 1$ 5

(b) If $\frac{a}{b} = \frac{b}{c}$, shew that $\frac{a}{c} = \frac{a^2 + b^2}{b^2 + c^2}$. 5

6. (a) Solve $\frac{x+3}{4} - \frac{x+4}{5} = \frac{x+5}{6} - \frac{x+6}{7}$. 5

Or,

Solve $x + 2y = 3 = 4x - y$. 5

(b) The half of a certain integer exceeds the third of the next greater integer by two. Find the integer. 5

7. Prove that two straight lines which are parallel to the same straight line are parallel to each other. 8

Prove that two straight lines which are perpendicular to the same straight line are parallel to each other. 6

Or,

Shew that if two angles of a triangle are equal, the sides opposite to these are equal. 8

Shew that if a triangle has two of its sides equal and one angle 60° , it is equilateral. 6

8. Shew that equal triangles on the same base are of equal altitude. 8

Shew that the straight line joining the middle points of two sides of a triangle is parallel to the base. 6

Or,

Shew that the angle in a semi-circle is a right angle. 8

Find the locus of intersection of two straight lines which are at right angles and pass through two fixed points. 6

9. Shew that if two chords of a circle intersect either inside or outside a circle, the rectangle contained by the segments of the one is equal to the rectangle contained by the segments of the other. 12

Or,

Construct a right-angled triangle ABC, right angled at A and having the side AB equal to two inches and the hypotenuse BC equal to three inches. Describe two equilateral triangles ABD and ACE externally on AB and AC, and let CD and BE intersect at O. Measure the lengths of CD, BE, OA, OB and OC, and point out any relations that may subsist between them. 12

(Traces of the constructions must be left on the paper.)

MATHEMATICS.

ADDITIONAL PAPER.

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Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

In awarding marks, neatness of diagrams will be taken into account.

1. Find the square root of 57592921. 10

Or,

Find to within one millimetre the length of the side of a square whose area is two square metres. 10

2. Calculate, to four places of decimals, the value of 10

$$1 + \frac{1}{2} + \frac{1}{2 \times 4} + \frac{1}{2 \times 4 \times 6} \times \frac{1}{2 \times 4 \times 6 \times 8} + \dots$$

Or,

Divide 12345678 by 09876543. Correct to four places of decimals. 10

3. (a) Solve, without assuming formula, 6

$$x^2 - x = 1806.$$

- (b) Find the square root of

$$1 + 2a + 2a^2 + a^3 + \dots$$

4. (a) Shew how to find the sum of n terms of an A. P., being given the first term and the common difference. 6

Or,

Shew how to find the sum of n terms of a G. P., being given the first term and the common ratio. 6

(b) Sum to n terms 6

$$1 \times 2 + 2 \times 3 + 3 \times 4 + 4 \times 5 + \dots$$

Or,

$$\text{Sum to } n \text{ terms } 1 + 2x + 3x^2 + 4x^3 + \dots$$

5. Trace the graph of $y = x^2 - x$ from $x = -1$ to $x = 2$ and therefrom obtain an approximate solution of the equation $1 = x^2 - x$. 12

Or,

Draw an inscribed and an escribed circle to a given triangle. Also draw a circle through the middle points of the sides of the triangle. 12

(Only traces of constructions are required. The diagram should be fairly large.)

6. If a straight line be drawn parallel to one side of a triangle, shew that the other two sides are divided proportionally. 12

(One general case will suffice.)

Or,

Shew that the ratio of the areas of two similar triangles is equal to the ratio of the squares on the corresponding sides. 12

7. Prove from properties of similar triangles that if two chords of a circle intersect, either within or without the circle, then the rectangle contained by the segments of one shall be equal to the rectangle contained by the segments of the other. 10

8. Draw a pair of direct common tangents to two circles. 12

(Statement as well as justification of the constructions is required.)

Or,

Draw an isosceles triangle having each of the angles at the base double of the vertical angle. 12

(Statement as well as justification of the constructions is required.)

9. Shew that if AP and BQ be parallel radii of two fixed circles whose centres are A and B, then PQ passes through one or other of two fixed points. 10

* SANSKRIT.

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BABU HARIDAS SEN GUPTA.
BABU NIRANJAN PROSAD CHAKRABARTI.
BABU DEBKUMAR DATTA.
PANDIT LALITMOHAN SMRITITIRTHA.

(To look over answer-papers written in Devanagri
character).

BABU GIRINDRAMOHAN MISRA, M.A.
BABU BIJAYKRISHNA GOSWAMI.
BABU ANARESWAR THAKUR, M.A.
BABU SARAJU JHA, M.A.

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 contd. { MAHAMAHOPADHYAYA SADASIWA MISRA.
 BABU RADHAKRISHNA BOSE, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate from Sanskrit into English any one of the following 15 groups (A), (B):—

(A)

(क) एवं तस्य राजक्रियायां वर्तमानस्य ते सिंहादयो सुगान् व्यापाह्य तस्य पुरतः प्रक्षिपन्ति । सोऽपि प्रभुधर्मेण सर्वभ्यस्तान् विभज्य प्रयच्छति ।

(ख) तद् यदि मम त्वं सुहृत् सत्यस्तस्य राजापसदस्य कोऽपि वधोपायश्चिन्त्यताम्, यस्यानुष्ठानेन मे सन्तिनाशदुःखमपसरति ।

(ग) अनन्तरं च सहजचपलतया महता प्रयत्नेन तं कौलकमा-
 कृष्टवान् । आकृष्टे च कौलके काष्ठाभ्यां खण्डितलाङ्गूलः पञ्चत्वं गतः ॥

(B)

(च) भो भगवन् ! मदनुग्रहार्थमेतानर्थशास्त्रं प्रतिद्राग्यथानन्य-
 सदृशान् विदधासि तथा कुम् । तदहं त्वां शासनशक्तेन योजयिष्यामि ।

(छ) तत्र च वर्धयं स्थित्वा सुवर्णशतत्रयोपार्जनं कृत्वा भूयः
 स्वसहं प्रस्थितः । अथाहुर्मार्गं महाटव्यां गच्छतोऽस्य भगवानादित्यो-
 ऽस्तमुपागतः ।

(ज) मित्र ! मम मतेनास्य सेवेव न क्रियते, तत् किमस्य
 विद्वानिरूपणेन ? यतोऽनेन राज्ञाऽवधीरिताभ्रगामावाभ्यां महदुःख-
 मनुभूतम् ।

(i) Change the voice of only one of the underlined parts of the 3
 above extracts.

(ii) Name and expound the Samāsa (समास) in any three of the 3
 following compounds as used in the extracts in question 1 :—

- | | |
|---------------------|----------------------|
| (1) राजक्रियायां, | (2) राजापसदस्य, |
| (3) खण्डितलाङ्गूलः, | (4) अर्थशास्त्रम्, |
| (5) महाटव्याम्, | (6) विद्वानिरूपणेन । |

(iii) Who is the speaker of extract (ख) or (ज) To whom, and 3
 on what occasion, was it spoken ?

2. Give, in English, the substance of *any one* of the following 12 groups (A), (B):—

(A)

ततः प्रवृत्तं मधुरं गान्धर्वमतिमानुषम् ।
न च तृप्तिं ययुः सर्वं श्रोतारो नेयसम्पदा ॥
नेदृशं दृश्यते रूपं गतासूनां विश्राम्यते ! ।
विद्यादं मा कृथा वीर ! सप्राणोऽयमरिन्दम ! ॥

(B)

यदि बुद्धिः कृता राजन् अवणाय महारथ ! ।
कर्मान्तरे सखीभूतसक्कृणुष्व सहानुजः ॥
असृज्य यदि गच्छामि विश्रम्यकरणीमहम् ।
कालात्ययेन दोषः स्याद् वैकृत्यं च महद् भवेत् ॥

(a) Point out the finite verb in *only one* of the underlined sentences in the above *ślokas*, and show the nominative to it. 2

(b) Disjoin the *Sandhi* (सन्धि) in *any two* of the following parts 4 of the above extracts:—

- (1) श्रोतारो नेयसम्पदा । (2) मा कृथा वीर ।
(3) तच्छृणुष्व । (4) महद् भवेत् ।

3. Give, in English, the story alluded to in:— 4

यदाश्रोत्रं द्रोपदीं रङ्गमग्रे
लक्ष्यं भित्त्वा निर्जितामर्जुनेन ।
शूरान् पाञ्चालान् पाण्डवेयांश्च युक्तान्
तदा नाशंसे विजयाय सञ्जय ! ॥

(1) Parse पाञ्चालान् in the above verse. 1

4. Fill up the gaps in *any one* of the following *ślokas* with words 3 as used in your text-book:—

मृदं अनुमपि विश्वस्तमकुतोभयम् ।
यो तस्य साकृतब्राह्मणघातजम् ॥
जातिमात्रेण किं कश्चिद्वन्यते कश्चित् ।
व्यवहारं परिज्ञाय ऽथवा भवेत् ॥

Or,

Quote the full *śloka* of which *one* of the following is a part:—

- (a) सृतानां स्वामिनः कार्यं मृथानामनुवर्तिनाम् ।
(b) ह्येतुः पार्श्वगताच्छायां नोपसंहरति ह्रमः ॥

5. Form nouns from *three* of the following verbs:—

6

गम्, वृष्, भुज्, मुच्, पत् and वृत्;

and adjectives from *three* of the following nouns:—

ग्राम्, शिव, वन, निशा, वध and दिव्.

6. (a) Decline पति or पथिन् in the Locative Case (सप्तमी), वाच or वागिष् in the Instrumental Case (द्वितीया), and जरा or मति in the Dative Case (संप्रदान).

- (b) Conjugate in Active Voice (कर्तृवाच) :—गम् or ग् in *lit* (सिद्ध) in the third person only and क् or हस् in *lit* (लोट) in the second person only.

- (c) Compose sentences to show the use of the following verbs governing nouns in Ablative Case (अपादान) :—

भी, त्रे and पत्.

- (d) Give the feminine forms of *any two* of the following:—

2

पुत्र, श्वन् and सखि.

7. Correct *any two* of the following sentences:—

6

(a) भवान्नम्रं भोजनं कृत्वा गृहं गच्छ ।

(b) एतेषु सतासु पुष्पा जायन्ति ।

(c) मम प्रति तस्य कोपं न सङ्गच्छति ।

8. Translate *any five* of the following into Sanskrit:—

25

(a) On the banks of the river were trees of different kinds under whose shade the breeze blew gently and birds were singing in the branches.

(b) When they arrived at the bank of the tank, they fastened their horses and washed their faces and hands.

(c) On hearing these words, he mounted the carriage quickly and arrived at the hill where he killed the demon.

(d) Those two Brahmins started thence, and after some days arrived at the abode of the king and mentioned all that had taken place.

(e) At length when the days dawned, and all the people of the house did not see the young girl, they began to say, " Who has taken her away and where has she gone ? "

(f) When the queen and her daughter saw that the king was dead, they returned to the forest, weeping and striking their breasts.

(g) He rose and sat up, just as anyone would rise and sit up from a sleep. All the people were astonished when they saw this and returned home.

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The figures in the margin indicate full marks.

1. Translate into English any three of the following extracts : — 30

(a) तद्वृष्टा राजा मन्त्रिणमुवाच, ओ मन्त्रिण ! एतत् विहाय न
 मयम् समासाध्यमभवत्, परन्तु इदानीं तव बुद्धिप्रभावेण मम

हस्तगतमासीत् । अहो बुद्धिमतां वंशगो लाभाय सुखाय च भवति । ततो मन्त्रिणा भणितम्, भो राजन् ! श्रूयतां, यः स्वयं बुद्धिमान् न भवति, अन्येषामपि बुद्धिं न शृणोति, स सर्वथा नाशं प्राप्नोति । त्वं तथाविधो न भवसि ।

(b) ततो बुद्धिसागरः द्वारपालानाङ्गुय न केनापि भूपालभवनं प्रवेष्टव्यं इत्युक्त्वा नृपमतःपुरे निवेश्य सभाया मेकाकी सन् उपविष्टः । ततो राजमरुद्वार्त्तां श्रुत्वा वत्सराजो मृदमागत्य बुद्धिसागरं नत्वा शनैः प्राह, तात ! मया भोजराजो रक्षितः इति । बुद्धिसागरस्य कर्णं किमप्यकथयत् । तदुक्त्वा वत्सराजश्च निष्क्रान्तः ।

(c) शिक्कमादित्यः राघवं पालयन् एकदा चारान् आहूय अब्रवीत्, भो वृताः ! भवन्तः पृथिवीपरिभ्रमणं कुर्वन्तो यत्र यत्र कौतुकं तीर्थ-विशेषञ्च विलोकयन्ति, तन्मम निवेदयन्तु । अहं तत्र गमिष्यामि । एवं गते काले एकदा देशान्तरं परिभ्रमद्वागतः कश्चिद्वृत्तो राजानम-ब्रवीत्—भो राजन् चित्रकूटपर्वतनिकटे तपोवनमध्ये अतिमनोहरो देवालयोऽस्ति ।

(d) कदाचित् सुगयार्थं दहिर्गतो राजा पुरः पलायमानं वराहं दृष्ट्वा स्वयमेकाकितया वूरं वनात्तमासादितवान् । तत्र कञ्चन द्विजवरमवलोक्य प्राह, द्विज ! कुत्र गन्तासि ? द्विजः प्राह धारा-नगरम् । भोजः—किमर्थम् ? द्विजः—धनाकाङ्क्षया भोजं द्रष्टुम् । स पण्डिताय तत्ते । अहमपि भूर्खं न याचे । भोजः—विप्र ! तर्हि त्वं विद्वान् कविर्वा ? द्विजः—महाभाग कविरहम् ।

2. (a) Translate into English either A or B.

A.

यदि वधमिच्छसि रावणस्य संधौ
यदि च कृतां हि तवेच्छसि प्रतिज्ञाम् ।
यदि तत्र राजसुनाभिलाष आर्य !
कुत च वचो मम श्रीश्रमस्य वीर !

B.

तस्मादियं नरवरात्मज ! हृदभावा
दिव्येन दृष्टि विषयेण मया पदिष्टा ।

लोकापवादकसुषीकृतचेतसा यत्
व्यक्ता त्वया प्रियतमा विदितार्पि श्रुता ॥

- (b) Expound the *Samāsas* in लोकापवादकसुषीकृतचेतसा in extract 3
B. What is the nominative singular form of its base ?
(c) Change the voice of the second line of *śloka* A. 2

यदाऽश्रोत्रमर्जुनं देवदेवं
किरातवपं त्र्यम्बकं तोष्य युद्धे ।
अवाप्तवन्तं पाशुपतं महास्रं
तदा नाशंसे विजयाय सञ्जय ! ॥

- (a) Give, in English, the story alluded to in the above *śloka*. 2
(b) Why is Mahādeva called त्र्यम्बक ? Is the word तोष्य rightly 4
used ? If not, give the right form, and the reasons for your answer.
(c) In the case of महास्रम् would also महदस्रम् be right in any 3
case ? Give reasons for your answer.
(d) Who was सञ्जय ? Parse विजयाय, and give the present tense 5
(लृट्) and past tense (लिट्) forms of the root of विजयाय, retain-
ing the prefix वि ।
4. Give the feminine forms of वक्ष्य and भव, and give also the 5
Genitive (बहुविभक्ति) forms of जयिष्य and उदय, in the feminine
gender.
5. When are the words दक्षिण and स्व used as pronouns (सर्वनाम) ? 6
Illustrate your answer by short Sanskrit sentences.
6. State the cases when any two of the following roots (विग्र, रम् 4
and ह्रा) take the *Atmanepada* (आत्मनेपद) termination. Give illus-
trations.
7. Give, in English, the story, the moral of which runs as 3
follows :—

“नीचः स्नाद्यपि प्राप्य स्वामिनं हनुमिच्छति ।”

8. Translate any five of the following extracts into Sanskrit :— 25
(a) In this forest Rāma once dwelt accompanied by Lakshmana and Sītā, in the society of hermits, erecting a hut at the foot of a tree.
(b) When my father went to heaven, I went to Pātālīputrā, and repaired to a teacher, named Jayadatta, to acquire learning, but unable to learn anything, I set out on a pilgrimage to the shrine of Durgā.
(c) In old time, my liege, there were two different kingdoms of the Vidyādhara, on the two sides of Mount Kailāsa. One of them propitiated Siva, and was appointed Emperor over both the king-
doms.

(d) While as a boy I was studying the Vedas, there arose a terrible famine in that land. So my father and mother went off with me to a city named Visálá.

(e) Then the hermit reached the river Gaudhabatí and after dispelling his fatigue by bathing in it, he arrived with his companions in the cemetery of Mahákála.

(f) In that village the prince beheld on all sides a crowd of Chandálas, adorned with peacocks' feathers, and clothed in tigers' skins, and living on the flesh of deer.

(g) There lived in the Dakshin, in a city called Gokarna, a king named Srutasena, who was the ornament of his race and possessed of learning. And this king, though happy with fortune, had one source of sorrow—he had no child.

PALI.

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The figures in the margin indicate full marks.

1. Translate into English any five of the following extracts:—

15

(a) Tasmim khaṇe kacchapena ekam eva vaddham *thapetvā* sesavarattā khāditā honti, dantā pan' assa patanākārappattā jātā, mukham lohita-makkhitam.

(b) Ath' eko bālisiko satta rohitamacche uddharitvā valliya āvunitvā netvā Gaṅgātīre vālikāya paṭiechādetvā macche gaṇhanto adho Gaṅgam bhasi.

(c) Uddo "atthi nu kho imesaṃ sāmiko" ti *ikkhattum* ghosetvā sāmikam apassanto valliyaṃ dasitvā attano vasanagumbe *thapetvā* "velāyam eva khādissāme" ti attano silam āvajjanto nipajji.

(d) Elako visatthamatto va ekaṃ pāsānapittham *nissāya* jāta-gumbe givam ukkhiyitvā paṇṇāni khāditum āradḍho. Ekā pāsāna-sakalika chijjitvā elakassa pasāritagīvāya patitvā sisam chindi.

(e) Samuddadevatā niyyāmakā ahoṣi. Nāvā sattahi ratanehi *pūṇayittha*. Tayo kūpaka indanilamanimayaṃ ahesum, sovaṇṇamayo lankāro, rajatamayāni yottāni, suvaṇṇamayāni padarāni.

(f) Vāsipharasuko gantvā sisam āharitvā pādamūle nikkhipi, eko p' āvudham ukkhipitum *nāsakki*.

(g) Rañño hanukatthikena dalham katvā gāhitasigāle *aparāparam* saṃsarante paṃsu sithilo ahoṣi. So pi sigālo maraṇabhayaḥhito catūhi pādehi rañño uparimabhāge paṃsum apabbūhi.

2. (a) Parse *any three* of the italicised words in the above extracts. 3

(b) Name and expound the *saṃāsas* in *any two* of the following:— 3
patanākārappattā, *mantujjhāyakabrāhmaṇo* and *paṇḍurogadānūko*.

(c) Conjugate in the 3rd person singular only *any three* of the following:—*kar* in the aorist, *bhuj* in the present indefinite, *sak* in the future, and *bhī* in the imperative. 3

3. Give in English the purport of *one* of the following stanzas:— 5

(a) Āsimseth'eva puriso, na nibbindeyya paṇḍito, passāmi vo 'ham attānaṃ, yathā icchim tathāhū.

(b) Yathā suriyam udentam na sakkā āvaritum nabhe evam nisīdanam cammam n' atthi āvaranābhe.

4. Give in simple English the story referred to in *either* of the following couplets:—

(a) Sabbhireva saṃāsetha, sabbhi kuḍḍetha santhavaṃ, satam hi sannivāsena sotthim gacchati nahāpito.

(b) Mama lohitabhakkhassa nīcam luddāni kuḍḍato dantaṇṭaragato santo tam bahum yaṃ hi jīvasi.

5. Translate into English *any two* of the following extracts:— 10

(a) Māravādāṃ bhidditvāna vitrāsetā sasenakaṃ jayo attamaṇo dhīro santacitto samāhito Vipassanākammatthōnaṃ manasikāraṃ ca yoniso sammasi bahuvīdhaṃ dhammaṃ anekākāraṇissitaṃ Pubbeni-vāsāññaṃ ca dibbacakkhuṃ ca cakkhumā sammāsanto mahāññaṃ yāme tayo atikkami.

(b) Mahāyaññaṃ pakappimsu Aṅgā ca Māgadhi ubho disvā yaññe mahālābhaṃ vicintesi ayoniso: “Mahiddhiko mahāsomaṇo anubhāvaṃ ca tam maha, sace mahājanakāye vikubbeyya katheyya vā. Parihāyissati me lābho Gotamassa bhavissati; aho nūna mahāsomaṇo nāgaccheyya saṃāgamaṃ.”

(c) “Ahaṃ karomi te uṇhaṃ nama detha nisīditum atthi teja-balaṃ mayhaṃ parrissayavinodanaṃ.” “Sace vinoditum sakkā nisīdāhi yathiechitaṃ sabbehi samanūññātaṃ tava tejabalaṃ kara.” “Uṇhaṃ yācatha maṃ sabbe bhiyyo tejaṃ mahātapam khippan karoma accuṇhaṃ tumhehi abhipatthitaṃ.

6. Give the substance of the following couplets in English:— 7

Asevanā ca bālānaṃ paṇḍitānaṃ sevenā
pūjā ca pūjanīyānaṃ etaṃ maṅgalamuttamaṃ.
Patirūpadesavāso ca pubbe ca katapuññatā
attasammāpanidhi ca etaṃ maṅgalamuttamaṃ.

7. (a) Analyse the *sandis* in *any four* of the following:—*sākhagge*, *appeva*, *naḍidaṃ*, *ajjatagge*, and *accuṇham*. 4

(b) Decline fully *any two*:—*Satta* (seven); *rāsi* and *ubha*. 6

(c) How is the Feminine formed in Pāli? Give the feminine forms of *any four* of the following:—*guṇavā*, *hatthī*, *sīha*, *yakkha*, and *upāsaka*. 6

8. Correct *any three* of the following:— 6

(a) Ahaṃ nāvasmiṃ vohāram karissāmi.

(b) Ubho pi ekato nipanno dipakaṃ gato.

(c) Gacchante kālassa rājadhītā puttam vijāyi.

(d) Kimatthaṃ bho rodisi, kim te pitā kālakatā.

(e) Vande 'haṃ Sammāsambuddhassa.

9. Translate into Pāli *three* from Group A, and *two* from Group B:—

A.

- (a) He is everywhere respected.
- (b) We should not forsake our friends in their distress.
- (c) Knowledge is more precious than jewels.
- (d) It is better to possess wisdom than gold.
- (e) The king is the guardian of religion.

B.

(a) On a dark night the king heard a pitiful wail. He called his servants and ordered them to ascertain the cause of the cry.

(b) One of the servants made his way to the spot, being led by the sound, and found a young and beautiful woman.

(c) She said: "I am the goddess of the king's fortune, I must leave him now; therefore I am sorry."

PALI.

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The figures in the margin indicate full marks.

QUESTIONS FROM THE TEXT.

1. Translate into English *any two* of the following extracts:— 10

(a) Te tain ādāya gantvā idani Kāranani ācariyassa arocesuni. Ācariyotesani vacanani sutvā elakahi pucchi. "Kasmā tvani elaka hasi, Kasmā rodi" ti, elako attanā Katakammani jātissaraūānena anussaritvā brāhmaṇassa Kathesi: "ahani brāhmaṇa pubbe tādiṣe va mantajjhāyakabrāhmaṇaohutvā matākabhattani dassāmiti elakani māretva adāsini; svāhani ekassa elakassa ghātītatta eken' ūnesu pañcasu attabhāvasatesu sisacehedadukkhani pāpuṇi; ayani me koṭiyani thāto pañcasotimo attabhāvo; svāhani aṇṇa evarūpadukkhā muccissāmi" ti somanassajāto iminā kāraṇena hasinī."

(b) So ekadivasani pāribbājakārā mā nikkhamitvā Sāvattihyani bhikkhāya caranto elakānani yujjhanatthānani sanipāpuni. Elakotani disvā paharitrekāmo osakki. Paribbājako "eso mayhani apacitini dasseti" ti napatikkane. Elako vegenā āgantvā tani urumhi paharitvā patesi. Tassa tani asantapariggaha Kāraṇaṇi bhikkhusa-nighe-pākaṭani ahoṣi, Bhikkhū dhammasabhāyani kathani samut-thāpesuṇi; "āvuso cammasātakaparibbājako asantepaggahani katvā vināsani patto" ti. Sattha āgantvā "Kāya nu'ttha bhikkhave etarahi Kathāya sannisinnā" ti pucchi.

2. (a) Parse *any three* of the italicised words in the above extracts. 3
 (b) Analyse the sandhi in *Svāhani* and *nu'tha*. 2
 (c) Analyse *any two* of the following compounds:—‘jatissarañena,’ 3
 ‘attabhāvasatesu,’ and ‘Sisacchedadukkhani.’
 (d) Where was Sāvattthi situated, and why was it famous? 2

QUESTIONS ON GRAMMAR.

3. (a) Frame sentences in Pāli to illustrate the use of *any three* of the following *nīpātas*:— 6
 ‘Sakini,’ ‘addhā,’ ‘Saddhini,’ ‘bhiyyo,’ ‘sace’ and ‘ingha.’
 (b) Give with illustrations the infinitives in ‘*tuin*’ of *any four* of the following roots:— 6
 ‘nī,’ ‘su,’ ‘hā,’ ‘dis’ (to see), ‘pac,’ and ‘kar.’
 (c) Conjugate *any two* of the following roots in the aorist (ajjatani) and optative (sattamī) in all the persons and numbers:— 6
 ‘ñā’ (to know), ‘bhuj’ (to eat), ‘jhā’ (to meditate), and ‘yā’ (to go).
 (d) Give the full declensions of *any two* of the following bases:— 7
 ‘Aṭṭhi,’ ‘Guṇavā,’ ‘Mano,’ and ‘Purnā.’

TRANSLATION INTO PĀLI.

4. Translate into Pāli *any three* of the following passages:— 25
 (a) Once there was a terrible famine in the Kingdom of Kāśi. Many men died for want of food. The King tried his best to relieve the distress of the people.
 (b) Angulimālā was a notorious robber. He killing men used to cut off their fingers and wear them in a garland round his neck.
 (c) Once he saw Buddha and wanted to kill him, but hearing his words he was moved, and throwing away his weapons he fell at his feet.
 (d) Formerly the island of Ceylon was full of Yakkhas. Buddha went there and subdued the Yakkhas and made the island fit for human habitation.

UNSEEN PASSAGES.

5. Translate into English *any two* of the following passages:— 30
 (a) Tassāvidūre ekani sarani nissāya bahusūkarā nivāsani kap-pesuni. Tain eva sarani nissāya tāpasāpi paṇṇasālāsu vāsani kap-pesuni. Ath’ekadivasani siho mahisavāranādisu aññatarani vadhi-tvā yāvadaṭṭhāni manisani khāditvā tani sarani otavitvā pāñiyani hivitvā uttari. Tasmini khane eko thullasūkaro tani sarani nissāya gocarain gaṇhāti. Siho tani disva “aññani ekadivasain imani Khadi-ssami, mani kho pana disvā nāgaccheyyā” ti tassa ānāgamanabha-yena ekena passena gantuni ārabhi. Sūkaro oloketvā “esa mani disvā mama bhayena upagantuni asakkonto palāyati, ajja mayā iminā Sihena Saddhini payojetuni vattatī” Sisan ukkhipitvā tani yuddnatthāya avhayanto paṭhamani gāthani āha.
 (b) Atite Bodhisatto ekasmini brāhmanakule nibbattitvā vayap-patto Takkaśiḷāyani sippaṇi uggaṇhitvā gharāvāsani santhapesi. Ath’assa brāhmaṇi ekaniputtani vijāyitvā puttassa ādhāvitvā pari dhāvitvā vicarapakāle Kālani akāsi. Bodhisotto tassā petakiccani

katvā “ninindedāni gharāvāsenā” ti puttani gahetvā “pabbajisāmi” ti assumukhani ūṭimittavaggani pahāya puttani ādāya. Himavantani pavisitvā isipabbajjani pabbajjitvā tattha vanamūla-phalāhārā vāsani kappesi. So ekadivasani vāssānakāle deve vassante sārādārūni jāletvā aggini visivento phalake nipajji. Putto pi’ssa pitupāde sambāhanto nisīdi. Ath’eko vanamakkato sītena piḷiyamāno tassapaṇṇasālāya tani agginidivā “aggini visivetuni labhisāmi” ti paṇṇasālāya avidūre tāpasavesena atthāsi.

(c) Ath’ekadivasani rājā uyyānani gantvā ambarukkhamūle mahāsayane nibanno uddhani olovento rukkhagge ekani ambapimdim divā “imani nasakkā abhirūhitvā gāṇhituni” ti dhanuggahe pakkosāpetvā “imani ambapiṇḍini sareṇa chinditvā pāṭetuni sakkhissathā” ti āha. “Na etani deva amhākani garu, devena pana amhākani bahuvāre kammani dīṭṭahubbani, adhūnā āgāto dhanuggaho amhehi bahukatarani labhati, tani pātāpethā” ti. Rājā Bodhi sattani pakkosā petvā “Sakkhissasi tatā etani pāṭetuni” ti pucchi. “Ama Mahārāja ekani okāsani labhamāno Sakkhissāmi” ti. “Katar okāsani” ti. “Tumhākani sayanassa antoksānis” ti. Rājā sayanani harāpetvā okāsani kāresi Bodhisatto “sānini laddhuni vattat” ti āha. Rājā “Sādhu” ti sānini āharāpetvā pari khipāpesi.

ARABIC.

Paper-setters— { SHAMS-UL-ULMA KAMALUDDIN AHMAD.
ABDULLA ABU SAYEED, M.A.
KHAN BAHADUR MAULAVI Hidayat
HOSSAIN.

COMPULSORY PAPER.

Examiners— { KHAN BAHADUR MAULAVI Hidayat HOSSAIN
MAULVI MD. IRFAN, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English any two of the following:—

A.

12

فلما وصلت الأرض اسرعت و فككت الرباط من رجليه
و انا خائف منه ولم يحس بي و بعد ما فككت عمامتي منه
و خلصتها من رجليه و انا انتفض مشيت فى ذلك المكان -
ثم انه اخذ شيئاً من على وجه الأرض فى مخالبه و طار الى

عنان السماء - فتأملته فاذا هوجية عظيمة الخلقة كبيرة الجسم
قد اخذها وذهب بها الى البحر - فتعجبت من ذلك - ثم انى
تمشيت فى ذلك المكان فوجدت نفسى فى مكان عال وتحت
واد كبير واسع عميق و بجانبه جبل عظيم شاهق فى العلو *

B.

12

فقال يزيد بن عبد المدان اما و الله يا رسول الله ما حمدناك
و لا حمدنا خالد ا فقال رسول الله فمن حمدتم - قالوا حمدنا
الله الذى هدانا بك - قال صدقتم - ثم قال رسول الله صلى الله
عليه و آله و اصحابه وسلم بم كنتم تغلبون من قاتلكم فى
الجاهلية - قالوا لم تكن نغلب احدا - فقال رسول الله صلى الله
عليه و آله وسلم كنتم تغلبون من قاتلكم - قالوا يا رسول الله كنا نغلب من قاتلنا
انا كنا بنى عبيد و كنا نجتمع و لا نتفرق و لا نبدا احدا بظلم -
قال صدقتم *

C.

12

قلت يا امير المؤمنين ما رايت مثل هذا قط - قال اي
شى يطيب ان يוכל و يشرب هذا الماء عليه - فقلت امير
المؤمنين اعلم - فقال رطب الازان - فبينما هو يقول هذا اذ سمع
وقع لجم البريد فالتفت فنظر فاذا بغال من بغال البريد على
اعجازها حقائب فيها اللطاف - فقال لخدام له اذهب فانظر
هل فى هذه اللطاف رطب - فان كان فيها رطب فانظر فان كان
آزان فات به *

2. Answer any two of the following:—

(a) Write short biographical notes on— 8
عبد الملك بن مروان - خالد بن الوليد and مامون - رشيد

- (b) Narrate briefly the conquest of حمص as given in your text. 8
 (c) Write the purport of the letter of the Prophet to خالد بن لوaid 8
 3. (a) Parse فان حمدنا الله الذي هدانا لهذا - فتعجبنا من ذلك in extract A, B and C, respectively. 6
 (b) Explain clearly the process of تلييل (permutation) in the following:— 5

قيل - خائف - يخاف - يدعو - بعن - مقول - يرمي - قالت - كن
 and ادع

- (c) Enumerate with examples the ناصب اسم ورافع that are حروف 8
 خبر and vice versa.
 (d) Give the singular or plural, as the case may be, of the follow- 6
 ing:—

- شى - فواكه - موالى - كرام - مادات - دار - غلام - باب - مجلس
 رجل - جوارى - اطعمة

4. Correct and rewrite with full vowel-signs:—

10

- (a) معلمون الولد اصحاب علم
 (b) قبيلة بنى اسد هو قبيلة من العرب
 (c) زوجة الحكيم هو ذات حسن وجمال
 (d) صاحب البيت غائبة اليوم
 (e) ابواب المدينة مفتوح
 (f) الرجال حاضر فى المجلس
 (g) هذه الكتاب نافع
 (h) هذا خادمة هؤلاء الاشخاص
 (i) كثيرون من الاغنياء لا يعرف قدر العلم
 (j) ابن ابوبكر كثير المال

5. Translate into Arabic:—Verily I am coming from Damascus 25
 and going to Cairo. Have you come from the house? We shall meet
 next month. The prince turned to the bearer of the letter. Do you
 speak Arabic? Yes, Sir, I speak a little. They received the guest
 this night among them. The youth rejoiced and asked for food from
 the man.

ARABIC.

ADDITIONAL PAPER.

Examiner—(SAME AS FOR COMPULSORY PAPER).

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate only two of the following extracts into English:—

A.

5

فانطلقا حتى اذا ركبا فى السفينة خرقها - قال اخرقتهما لتغرق
اهلها - لقد جئت شيئا امرا - قال الم اقل انك لن تستطيع
معى صبرا - قال لا تواخذني بما نسيت ولا ترهقني من امري
عسرا - فانطلقا حتى اذا لقيا غلاما فقتله - قال اقتلت نفسا
زكية بغير نفس - لقد جئت شيئا نكرا *

B.

5

كان قد دخل مدينة الملك يونان حكيم كبير طاعن
فى السن يقال له الحكيم رويان وكان عارفا بالكتب اليونانية
والفارسية والرومية والعربية والسريانية و علم الطب و النجوم
وعالما باصول حكمتها وقواعد امورها من منفعتها ومضرتها
وعالما بخواص الذبقات والكشائش والاعشاب المضرة والمنفعة
قد عرف علم الفلسفة وحاز جميع العلوم الطبية وغيرها *

C.

5

بعض الناس يقول خلق الله الليل قبل النهار وليستشهد
على حقيقة قوله ذلك بان الشمس اذا غابت وذهب ضوءها
الذي هونها وهجم الليل بظلامه فكان معلوما بذلك ان الضياء

هو المتورد على الليل و ان الليل ان لم يبطله النهار المتورد
عليه هو الثابت فكان بذلك من امرهما دلالة على ان الليل هو
الاول خلقا - و ان الشمس هو الاخر منهما خلقا و هذا قول يروي
عن ابن عباس رضي الله عنه *

2. Answer any two of the following :—

(a) Rewrite the following with full vowel-signs :—

5

بقدر الكد تكتسب المعالي ومن طلب العلى سهر الليالي

(b) Parse according to Arabic Grammar :—

5

صاح صاحب المركب باعلى صوته يا ركب السلامة *

(c) Give the singular or plural, as the case may be, of the follow- 5
ing :—

خبر and كتاب - امم - جبل - بحر - فاس - اسماء - ملائكة - عين - روح

3. Give in Arabic or English the substance of either of the follow- 4
ing :—

(a) حكاية الوزير المحتال

(b) حكاية الملك السند والباز

4. Translate into English :—

30

(a) قيل ان الهدد قال لسليمان على نبينا و عليه الصلوة
و السلام اني اريدان تكون في ضيائتي - فقال له سليمان على
نبينا و عليه الصلوة و السلام انا وحدي - فقال لا - بل انت و العسكر
في جزيرة كذا في يوم كذا - فمضى سليمان و جنوده الى هناك -
و صعد الهدد الى الجوّ و صاد جرادة و كسرها و رمى بها في
البحر - و قال يا نبي الله كلوا - فمن فاته اللحم لم تفتقه المرقّة -
فضحك سليمان و جنوده *

(b) دخل لَصُّ دار مالك بن دينار في الليل فطاف بها

فلم يجد فيها شيئا - فلما هم بالخروج رفع مالك رأسه و قال يا

هذا طلبت الدنيا فما وجدت بها عندنا - فهل لك ان تقبل على
 الآخرة - فقال اللص نعم - ثم تقدم الى مالك فتأب على يديه -
 فلما طلع الفجر اخذه مالك و مضى به الى المسجد - فلما رآه
 الثلاثة قالوا للشهيم ما هذا الرجل - فقال هذا لص - جاء ليصيدنا
 فصدنا - فصار ذلك اللص ببركة مالك بن دينار من كبار الاولياء *

5. (a) Enumerate *الإشارة* giving, at least, one example of 8
 each.

(b) Give the *صيغة* and *باب* of the following verbs:— 7

انشرح and *تصدق* - *اجتمع* - *لم اجد* - *سارت* - *قمت* - *ارتحت*

(c) Conjugate *حاضر معروف* and *قال* from *امر حاضر معروف* 6
 from *وضع*

6. Translate into Arabic:—Is the master of the servant in the 25
 house? No, he is in the garden of the neighbour. The merchant is
 present in the market of the city. The door of the house is open.
 The King's ministers are present in the Council. The relatives of the
 physician are rich. This book of the pupil is dirty. How many
 persons are present to-day? The house is about half an hour's dis-
 tance.

PERSIAN.

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Head Examiner—AGA MUHAMMAD KAZIM SHIRAZI.

COMPULSORY PAPER.

Examiners— { MAULAVI ABDUL RAHIM.
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MAULAVI ABDUL BARI.
MAULAVI MAHOMED MUSA, M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate any two of the following extracts into English :—

14

(a) درویش را ضرورتی پیش آمد - یکی گفتش فلان
نعمت بی قیاس دارد - اگر بر حاجت تو وقوف یابد همانا که
در قضای آن توقف روا ندارد - گفت من او را نمی دانم -
گفت منت رهبری کنم - دستش گرفت و بمنزل آن شخص
برد یکی را دید لب فروشته و ابرو بهم کشیده و تند ترش
نشسته - برگشت و سخن نگفت - یکی گفتش چه گفتی
و چه کردی - گفت عطای او بلقایی او بخشیدم *

(b) هر نعمت که بمرگ زوال پذیرد آن را خردمند در حساب
نعمت نگیرد - عمر اگرچه دراز بود چون مرگ روی نمود ازان
درازی چه سود - نوح علی نبینا و علیه السلام هزار سال در جهان
بسر برده است امروز پنج هزار سال است که مرده است - قدر
نعمتی را بود که جاودانه باشد و از آفت زوال بر کرانه *

(a) روزی در فصل بهاران با جمعی از دوستان بهوای کشت و تماشای صحرا و دشت بیرون رفتیم - چون در موضع خرم منزل ساختیم و سفره انداختیم از دور سگی آن را دید - زود خود را بآنجا رسانید - یکی از خاطر آن پاره سنگ برداشت و چنانکه نان پیش سگ اندازند پیش وی انداخت - او بوی کرد و بی توقف بازگشت - هر چند آواز دادند التفات نکرد - اصحاب از آن متعجب شدند - یکی از آن میان گفت میدانید که این سگ چه گفت - گفت که این بد بختان از بخیلی و گرسنگی سنگ می خورند - از خوان ایشان چه توقع توان داشت و از سفره ایشان چه تمتع توان داشت *

2. (a) Give the singular or plural, as the case may be, of the following:— 5

شاعر - طبیب - فصل - اعضا - خلائق - عهد - حقوق - بخیل - مسجد - اموال *

(b) State the صیغه of the following verbs:— 5

گفته بود - رفت - می گوئی - بگو - خواهم گفت

(c) Furnish the following with vowel points:— 4

رضی الله عنه - علیه السلام - السلام علیکم - صلی الله علیه و سلم *

3. Translate any one of the following extracts into English:— 14

A.

هر که باشد اهل ایمان ای عزیز
پاک دارد چار چیز از چار چیز
از حسد اول تو دل را پاک دار
خویش را بعد از آن مومن شمار

پاک دارد از کذب و از غیبت زبان
 تا که ایمان نيفتد در زبان
 پاک گر داری عمل را از ریا
 شمع ایمان ترا بشد ضیا
 چون شکم را پاک داری از حرام
 مرد ایماندار باشی و السلام
 هر که دارد این صفت باشد شریف
 ورنه دارد دارد ایمان ضعیف
 هر که باطن از حرامش پاک نیست
 روح او را ره سوی افلاک نیست

B.

کودکی از جمله آزادگان
 رفت برون با دوسه همزادگان
 پای چو در راه نهاد آن پسر
 پویه همین رفت در آمد بسر
 پایش از آن پویه در آمد ز دست
 مهر دل و مهر پایش شکست
 شد نفس آن دوسه همسال او
 تنگ تر از حادثه حال او
 آنکه روزا دوست ترین بود گفت
 در بین چاهیش نباید نهفت
 تا نشود راز چو روز آشکار
 ما نشویم از پدرش شرمسار
 عاقبت اندیش ترین کودکی
 دشمن او بود ز ایشان یکی

4. (a) Name the book and the author from which the extract 3 7
(b) is taken.

(b) Write any four lines of عطار فرید الدین عطار from your 12
own memory and translate one of them into English.

5. Answer any two of the following:—

(a) Give with meanings the feminine of خان خواجه - شوهر and 4
بیگ .

(b) Distinguish between (1) او and ان ; (2) چه and که

(c) Explain the terms مصدر - فعل میند

6. (a) Correct the following:—

(1) سه مردمان این کار کرد

(2) دیروز خواهم گفت

(3) من و او هر دو این کار را کردید

(4) شما را باید که هر روز با من ملاقات کرده بودن

(5) زید و عمرو هر دو گفت

(b) Conjugate آمدن in all persons of ماضی مطلق معروف and 5
ماضی استمراری معروف

7. Translate into Persian:—One day a King saw a beggar who 25
was a religious mendicant. He said to the King, "I am richer than
all the Kings of the earth." The King said "How?" He said "Be-
cause I am a man of God." The King asked him, "How art thou
richer than a King?" He said to him, "Because a King is a person
who has need of many things, but a religious mendicant is a man
who has need of nothing. I am a mendicant of that sort, therefore
I am richer than all of you."

PERSIAN.

ADDITIONAL PAPER.

Examiners—{ MAULAVI F. AHMED.
 MAULAVI ABDUL AZIZ.
 MAULAVI M. MD. LATIF.
 MAULAVI ABDUR RAHIM.
 MAULAVI ABDUL MURTADIR.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English :—

(A)

10

یکی از وزرای معزول شده بحلقه درویشان در آمد برکت
 صحبت ایشان در وی اثر کرد جمعیت خاطرش دست داد
 ملک بار دیگر باری دل خوش کرد و عملش فرمود قبول نکرد
 و گفت معزولی به که مشغولی ملک گفت هر آئینه ما را
 خردمند کافی باید که تدبیر مملکت را شاید گفت نشن
 خردمند کافی آنست که بچنین کارها تن در ندهد - * بیت *
 همای بر همه مرغان ازان شرف دارد
 که استخوان خورد و طایری نیاز دارد

(B)

10

هیچ از فرمان حق گردن متاب
 تا نمائی روز محشر در عذاب
 باطلی را ای پسر گردن منه
 نقد مردان را بهر کوهن منه
 در قضای آسمانی دم مزن
 هر کسی را بیش بیس و کم مزن

دست خود را سوی نامحرم میاز
جانب مال یتیمان هم میاز
تا توانی راز باهمدم مگوی
گرتو باشی نیز با خود هم مگوی

Or,

زهی روشن ز رویت چشم بینش
وجودت کیمیای آفرینش
مبارک نامه قرآن تو داری
که مرغ نامه شد روح الامینش
چه بیند مردم ار از خاک پایت
نباشد سرمه عین الیقینش
که دارد جز تو دست آنکه باشد
کلید نه فلک در آستینش
رسل را ذات تست آن خاتم چست
که قرآن آمده نقش نگینش

2. (a) Give the signification of all the **که** in extract (A). 4

(b) Explain the force of **تا** in **تا نمانی** and **تا توانی** in extract (B). 2

(c) Give the moods and tenses of the following verbs:— 5

دم وزن - نیاز دارد - باید - در آمد - معزول شده

(d) Give the plural of *any five* of the following:— برکت - خاطر - 5

عمل - طایر - فرمان - جانب - نقد - باطل

3. Translate into English:—

(A)

10

یکروز علی آمد نزد پدر - عرض کرد آقا - امروز یک عرضی
دارم - پدرش جواب داد بگو - گفت شما مکرر میفرمائید که
همیشه کار خوب بکن و هیچوقت کاری را که برای تو بد باشد

مکن - بفرمائید به بینم که از برای من بهترین کارها کدام است و بدترین کارها کدام - پدر گفت ای نور چشم من ازین سوآلی که امروز از من نمویی چشم من روشن شد و یقین دارم که اگر مادرت هم بشنود که تو اینقدر باهوش شده که اینطور چیزها را می پرسی هزار درجه بر مهریانی او نسبت بتو افزوده خواهد شد *

(B)

20

راهزنی نه مرتبه اموال تاجری را بغارت برد نوبت دهم که باز مشغول غارت بود تاجر او را دید و گفت نه نوبت است که اموال مرا بغارت بردی و مرا بی چیز و خود را صاحب مال کردی باز از زحمت راه زنی خلاص نشده اگر براه خدا بروی و از خدا بطلبی تو هم مثل من خواهی بود دزد را کلام تاجر اثر کرد و توبه نمود و مشغول کسب حلال شد و صاحب دولت گردید - پس از آن تاجر را جسته بشکرانه نصیحتی که بار کرده بود در برابر اموال غارت برده و با و پس داد و باقی عمر را براحت بسربرد *

4. (a) Name and explain the *aliif* (الف) in the following: — بسا 4
سمکارا - دمام - دریغا .

(b) Give Persian equivalents of the following: — *they shall arrive, he has to go, we will come, he ought to run, you might speak.* 5

5. Translate into Persian: — One day Kasim went to his father and asked for fifty or sixty rupees that he might go and trade, and he promised that if he lost the money he would not ask for any more. His father gave him sixty rupees, and he set out on his travels. After going some way he came to a village in which all the inhabitants were chasing a cat; he asked them what was the matter, and they told him that the cat was always stealing their Raja's milk and the Raja had offered a reward of twenty rupees to anyone who would kill it. Then Kasim said to them, "Do not kill the cat; catch it alive and give it to me and I will pay you twenty rupees for it; then you can go to the Raja and say that you have killed it and ask for the reward." 25

GREEK.

Paper-setters—{ REV. DR. G. HOWELLS, M.A., PH.D., B.LITT.,
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COMPULSORY PAPER.

Examiners—{ DR. H. STEPHEN, M.A., D.D.
REV. DR. G. HOWELLS, M.A., PH.D.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate:—

(a) Σὺν τούτοις δὲ ὢν καθορῶ βασιλέα καὶ τὸ ἀμφ' ἐκείνον στῆφος· 11
καὶ εὐθὺς οὐκ ἠνέσχετο, ἀλλ' ἐπών, τὸν ἄνδρα ὀρώ, ἵετο ἐπ' αὐτὸν· καὶ
παίει κατὰ τὸ στέρνον καὶ τιτρώσκει διὰ τοῦ θώρακος, ὥς φησι Κτησίας
ὁ ἱατρός, καὶ ἰᾶσθαι αὐτὸς τὸ τραῦμά φησι. παίοντα δὲ αὐτὸν ἀκον-
τίζει τις παλτῶ ὑπὸ τὸν ὀφθαλμὸν βιαίως. Κύρος δὲ αὐτὸς τε ἀπέθανε
καὶ ὅκτῳ οἱ ἄριστοι τῶν περὶ αὐτὸν ἔκειντο ἐπ' αὐτῷ.

Parse and give the principal parts of ἠνέσχετο, ὀρώ, and τιτρώσκει.
Who was Ktesias, and for what is he noted?

(b) Ἐγὼ γὰρ ὀκνοῖν ἂν εἰς τὰ πλοῖα ἐμβαίνειν ἢ ἡμῖν δοίη, μὴ 11
ἡμᾶς αὐταῖς ταῖς τριήρεσι κατιδύσῃ, φοβοίμην δ' ἂν τῷ ἡγεμονίῳ
δοίη ἐπεσθαι, μὴ ἡμᾶς ἀγαγῇ ὅθεν οὐκ ἔσται ἐξελεῖν· βουλοίμην δ'
ἂν, ἄκοντος ἀπιὼν Κύρου, λαθεῖν αὐτὸν ἀπελθόν· ὃ οὐ δυνατόν ἐστιν.
ἀλλ' ἐγὼ φημι ταῦτα μὲν φλυαρίας εἶναι· δοκεῖ δὲ μοι ἄνδρας ἐλθόντας
πρὸς Κύρον ἐρωτᾶν ἐκείνον τί βούλεται ἡμῖν χρῆσθαι.

Parse and give the principal parts of ὀκνοῖν, καταδύσῃ, ἀγάγῃ, and
λαθεῖν. Give the Greek for 'He went away without my knowledge.'

(c) Ἐλκετο δ' ἐκ κολεοῦ μέγα ξίφος ἦλθε δ' Ἀθήνη 11
οὐρανόθεν· πρὸ γὰρ ἦκε Θεὰ λευκώλενος Ἥρη,
ἄμφω ὁμῶς θυμῷ φιλέουσά τε, κηδομένη τέ·
στῇ δ' ὀπιθεν, ξανθῆς δὲ κόμης ἔλε Πηλείωνα,
οἷω φαινομένη, τῶν δ' ἄλλων οὕτως ὀράτο.
θάμβησεν δ' Ἀχιλεὺς, μετὰ δ' ἐτράπετ', αὐτίκα δ' ἔγνω
Ἰαλλάδ' Ἀθηναίην, δεινὴ δὲ οἱ ὅσσοι φάνθεν.

Parse ἦλθε οὐρανόθεν, ἦκε, and ἔλε. Give Attic for οἱ ὅσσοι φάνθεν.

(d) Νῦν δ' αἰνῶς δίδοικα κατὰ φρένα, μὴ σε παρείπῃ 11
ἀργυρόπεζα Θέτις, θυγάτηρ αἰθίοιο γέροντος.
ἡερίη γὰρ σοί γε παρέζετο, καὶ λάβε γούνων.
τῇ σ' οἷω κατανεύσαι ἐτήτυμον ὥς Ἀχιλῆα
τιμῆσθαι, δόλῃσθαι δὲ πολέας ἐπὶ νηυσὶν Ἀχαιῶν.

Parse λάβε γούνων and οἷω, and give the Attic forms of these words.
Sketch briefly the character of Athena in the Iliad.

(e) Καὶ πολλοὶ ἀκούσαντες ἐξεπλήσσοντο, λέγοντες, Πόθεν τοῦτω ταῦτα ; καὶ τίς ἡ σοφία ἡ δοθείσα αὐτῷ, ὅτι καὶ δυνάμεις τοιαῦται διὰ τῶν χειρῶν αὐτοῦ γίνονται ; οὐχ οὗτός ἐστιν ὁ τέκτων, καὶ οὐκ εἰσιν αἱ ἀδελφαὶ αὐτοῦ ὧδε πρὸς ἡμᾶς ; καὶ ἐσκανδαλίζοντο ἐν αὐτῷ. 6

2. Translate (unprepared):—

(a) *Christ at the Jewish festival.*

15

* Ἦδη δὲ τῆς ἑορτῆς μεσούσης ἀνέβη ὁ Ἰησοῦς εἰς τὸ ἱερὸν καὶ ἐδίδασκε. καὶ ἐθαύμαζον λέγοντες, Πῶς οὗτος γράμματα οἶδε, μὴ μεμαθηκώς ; ἀπεκρίθη αὐτοῖς καὶ εἶπεν, ἡ ἐμὴ διδάχῃ οὐκ ἐστὶν ἐμῇ, ἀλλὰ τοῦ πέμψαντός με ἔαν τις θέλῃ τὸ θέλημα αὐτοῦ ποιεῖν, γνώσεται περὶ τῆς διδασχῆς, πότερον ἐκ τοῦ Θεοῦ ἐστὶν, ἢ ἐγὼ ἀπ' ἐμαυτοῦ λαλῶ.

(b) *The choice of Hercules.*

20

Μία τῶν μεγαλῶν γυναικῶν προιοῦσα ἔφη ὁρῶ σε, ὦ Ηράκλεις, ἀποροῦντα ποῖαν ὁδὸν ἐπὶ τὸν βίον τραπῇ, ἐὰν οὖν ἐμὲ φίλην ποιήσῃ, ἐπὶ τὴν ἡδίστην τε καὶ ῥάστην ὁδὸν ἄξω σε, καὶ τῶν μὲν τερπνῶν οὐδενὸς ἄγευστος ἔσῃ, τῶν δὲ χαλεπῶν ἄπειρος διαβιώσῃ. σὺ μὲν γὰρ πολέμων οὐδὲ πραγμάτων φροντιεῖς, ἀλλὰ σκοποῦμενος διέσῃ τί ἂν κεχαρισμένον ἢ σιτίον ἢ ποτὸν εὔροις.

3. Turn into Greek:—

15

It was already about full market, and the stage was near where they intended to halt for the night, when one of Cyrus's Persian friends appeared galloping at full speed, and shouting to whomsoever he chanced to meet, both in Persian and in Greek, that the King was approaching with a great army prepared as for battle. Then there was much confusion because the Greeks and all the rest thought that he would fall upon them in disorder.

GREEK.

ADDITIONAL.

Examiner—REV. DR. G. HOWELLS, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate:—

20

(a) Πάτροκλος δὲ φίλῳ ἐπεπεῖ θεθ' ἐταίρῳ,
ἐκ δ' ἄγαγε κλισίης βρισήϊδα καλλιπάρηρον,
δῶκε δ' ἄγειν τὼ δ' αὖτις ἴτην παρὰ νῆις Ἀχαιῶν.
ἡ δ' ἀέκουσ' ἅμα τοῖσι γυνὴ κίεν' αὐτὰρ Ἀχιλλεὺς
δακρύσας, ἐτάρῳ ἄφαρ ἔζετο νόσφι λιάσθεις,
θὶν' ἐφ' ἁλὸς πολιῆς, ὁρώων ἐπὶ οἶνοπα πόντον,
πολλὰ δὲ μῆτρὶ φίλῃ ἠρήσατο.

- (b) Ἡ δὴ λοῖγμα ἔργα τάδ' ἔσσεται, οὐδ' ἐτ' ἀνεκτά,
εἰ δὴ σφῶν ἔνεκα θνητῶν ἐρεδαίνετον ὧδε,
ἐν δὲ θεοῖσι κολῶν ἐλαύνετον· οὐδέ τι δαιτός
ἐσθλῆς ἔσσεται ἦδος, ἐπεὶ τὰ χερίονα νικᾷ.
μητρὶ δ' ἐγὼ παράφημι, καὶ αὐτῇ περ νοεούσῃ,
πατρὶ φίλῳ ἐπίηρα φέρειν Διὶ ὄρρα μὴ αὐτε
νεκείησι πατῆρ, σὺν δ' ἡμῖν δαῖτα ταράξῃ.

Scan the last two lines.

Account for the hiatus before οἶνοπα and ἔργα. Parse and decline αἰ. Give the various epithets of that god which tend to show that he was primarily the god of the sky.

(c) Οὐ μὲν δὴ οὐδὲ τοῦτ' ἄν τις εἴποι ὡς τοὺς κακοῦργους καὶ ἀδίκους εἶα καταγελᾶν, ἀλλὰ ἀφειδέστατα πάντων ἐτιμωρεῖτο. πολλάκις δ' ἦν ἰδεῖν παρὰ τὰς στειβομένας ὁδοὺς καὶ παδῶν καὶ χειρῶν καὶ ὀφθαλμῶν στερομένους ἀνθρωπίπους· ὥστε ἐν τῇ Κύρον ἀρχῇ ἐγένετο καὶ Ἕλληνι καὶ βαρβάρῳ μηδὲν ἀδικοῦντι ἀδεῶς πορεύεσθαι ὅπῃ τις ἤθελεν. ἔχοντι ὃ τι προχωροῖ.

Parse and give the parts of εἶα. Derive the compound words.

2. Translate (unprepared):—

30

(a) *Cyrus the Great and his Uncle.*

Εἰπέ μοι, ὦπαππε, ἔφη Κύρος, ἦν τις ἀποδράσῃ τῶν οἰκετῶν, καὶ λάβῃς αὐτόν, τί αὐτῷ χρήσῃ; τί δὴ ἄλλο, ἔφη Ἀστυάγης, ἢ δῆσας ἐργάζεσθαι ἀναγκάσω; Ἦν δὲ αὐτόματός σοι πάλιν ἐπέλθῃ, πῶς ποιήσεις; τί δὲ, ἔφη, ἢ μαστιγώσας αὐτόν γε, ἵνα μὴ αὐθις τοῦτο ποιῇ, ἔπειτα ἐξ ἀρχῆς πάλιν αὐτῷ χρῆσθαι; ὦρα σὺν, ἔφη ὁ κύρος, παρασκευάζεσθαι σοι εἴη ὅτῃ μαστιγώσεις με, βουλευόμενόν γε ὅπως ἀποδρῶ, λαβὼν ἐμοὺς ἡλικιώτας ἐπὶ θήραν.

(b) *Zeus sends a lying dream to mislead Agamemnon.*

Ἄλλοι μὲν ῥα θεοὶ τε καὶ ἄνδρες ἱπποκόρυσται
Εὐδὸν παννύχιον· Δία δ' οὐκ ἔχε νήδυμος ὕπνος,
Ἄλλ' ὅγε μερμήριζε κατὰ φρένα, ὡς Ἀχιλλῆα
Τιμῆσῃ, δλέσῃ δὲ πολέας ἐπὶ νησὶν Ἀχαιῶν.
Ἦδε δὲ οἱ κατὰ θυμόν ἀρίστη φαίνεται βουλή,
Πέμψαι ἐπ' Ἀτρεΐδῃ Ἀγαμέμνονι οὐλοῦν Ὀνειρον·
Καί μιν φωνήσας, ἔπεα πτερόεντα προσηύδα·
Βάσκ' ἴθι, οὐλε Ὀνειρε, θοὰς ἐπὶ νῆας Ἀχαιῶν.

3. Turn into Greek:—

30

A wolf (λύκος), being hungry, was going round about seeking food. Being in a certain place, he heard a child crying, and an old woman saying to it: Cease from your crying; if not, I will give you, this very hour, to the wolf. Then the wolf, thinking that the woman was speaking the truth, stood waiting a long time. When evening was coming on, he heard the woman flattering the child, and saying: If the wolf come, we will kill him. Hearing this the wolf went away saying: In this place they say one thing, and do another.

4. (a) Decline in the singular: *αἰῶς, δῆς, and ναῦς*. 20
 (b) Give the principal parts of *διδωμι*. and conjugate fully its present and imperfect indicative active.
 (c) Point out the principal points of difference between the language of Homer and that of Xenophon.

LATIN.

Paper-setters— { REV. A. B. JOHNSTON, M.A.
 { T. S. STERLING, ESQ., M.A.

COMPULSORY PAPER.

Examiners— { REV. FATHER F. X. CROHAN, S.J.
 { REV. A. B. JOHNSTON, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English:—

(a) In castris Helvetiorum tabulae repertae sunt litteris graecis 6
confectae et Caesarem relatae, quibus intabulis nominatim ratio confecta erat, qui numerus domo exisset eorum arma ferre possent, et item separatim pueri, senes mulieresque. Quarum omnium rerum summa erat capitum Helvetiorum milia cclxiii, Tulingorum milia xxxvi, Latovicorum xiv. Rauricorum xxxiii, Boiorum xxxii; ex his, qui arma ferre possent ad milia xcii

Write grammatical notes explaining the case or mood of the words in italics. 6

Explain or show by a map where the Helvetii lived. 1

(b) His *mandatis* eum ab se dimittit. Postquam omnes Belgarum 6
copias in unum locum coactas ad se venire vidit neque iam longe abesse ab eis, quos miserat, exploratibus et ab Remis cognovit, flumen Axonam, quod est in extremis Kemorum finibus, exercitum traduceramuravit, atque ibi castra posuit.

Explain the circumstances. 3

Write grammatical notes on the words in italics. 2

Parse "*coactas*." 1

2. Translate into English:—

(a) Vix ex fatus erat, geminae cum forte columbae ipsa sub ora viri coelo venere volantes, et viridi sedere solo. Tum maximus heros maternas agnoscit aves, laetusque precatur: este duces, O si qua via est, curamque per auras dirigite in lucos ubi pinguem dives spacet ramus hummum, tuque O lubeis ne defice rebus diva parens.

Explain the circumstances. 2

Comment on *ne defice*. 1

Comment on 'The sixth book is beyond praise; to it Virgil chiefly owes his fame.' 4

(b) Quid memorem Lapithas, Isciona Pirithoumque? quos super 6
atra silex iam iam lapsura cadentique imminet adsimilis: lucent geni-

alibus altis aurea fulcra toris, epulaeque ante ora paratae regifico luxu; Furiarum maxima iuxta adcubat, et manibus prohibet contingere menses, exurgitque facem attollens, atque intonat ore.

Explain the allusions.

3.

Write a note on Virgil's idea of death and immortality with illustrations from Aeneid VI.

3.

3. Translate into English:—

(a) Limen at intravit, luctus videt omnia plena

15

Qam spes in puero nulla salutis erat.

Matre soluteta (mater Metanira vocatur).

Qungere dignata est os puerile suo.

Pallor abit, subitaeque vigint in corpore vires;

Tantus caelesti venit ab ore vigor.

Tota domus beta est: hoc est materque paterque

Nataque; tres illi tota fuere domus,

Mox epulas ponunt, liquefacta coagula lacte,

Pomaque et in teneris aurea mella favis.

(b) Ex pastoribus duos ferocissimos deligunt ad patrandum facinus. Ii simulata rixa in vestibulo regiae tumultuantur Quum eorum clamor penitus in regiam pervenisset, vocati ad regem pergunt. Prima uterque simul vociferari corpit, et certatim alter alteri obstrepere. Cum vero iussi essent invicem dicere, unus ex composito rem orditur; dumque intentus in eum se rex totus avertit, alter elatam securim in eins caput derecit, et relicto telo ambo foras se propriunt.

10

4. Translate into Latin:—

(a) Turnus meanwhile took advantage of the absence of Aeneas to attack the Trojan encampment at the mouth of the Tiber, which was brought into great peril. Aeneas, however, having made an alliance with Tarchon, the Etruscan leader, the Etruscans embarked on their ships, and having landed near the Trojan camp in spite of the opposition of Turnus, fought a fierce battle in which Pollas after performing many feats of valour was finally slain.

15

(b) Six hundred soldiers: the twenty-fifth horseman; the best and the worst; what am I to do?; never give in; try to win fairly.

10

LATIN.

ADDITIONAL PAPER.

Examiner—REV. A. B. JOHNSTON, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English:—

(a) quem iuxta sequitus iactantios Ancus, nunc quoque iam nimium gaudens popularibus auris, vis et Tarquinius reges animamque superbam ultoris Bruti fascesque videre receptos?

5

Explain the historical allusions.

2

Write a note on:—

Evadrenque et Pasiphaen : his Laodamia it comes.

(b) Biduo post Ariovistus ad Cæsarem legatos mittit. *Velle se de his rebus, quae inter eos agi coeptae neque perfectae essent, agere cum eo : uti aut iterum colloquio diem constitueret aut, si id minus vellet, e suis (legatis) aliquem ad se mitteret. Colloquendi Cæsari causa visa non est, et eo magis, quod pridie eius diei Germani retineri non potuerant quin in nostros tela conicerent.*

Explain the construction of *velle se . . agere ; constitueret . . mitteret : quin . . conicerent.*

Write a note on Ariovistus.

2. Translate into English:—

(a) Forte Jovi festum Phoebus sollemne parabat :

(non faciet longas fabula nostra moras.)

'I mea,' dixit, 'avis, ne quid pia sacra moretur :

Et tenuem vivis fontibus affer aquam.'

Corvus inauratum pedibus cratera recurvis

Tollit, et aërium pervolat altus iter.

Stabat adhuc duris ficus densissima pomio ;

Tentat eam rostro : non erat apta legi.

Immemor imperii sedisse sub arbore fertur,

Dum fierent torda dulcia poma mora.

Inde satur nigris longum rapit unguibus hydrum,

Ad dominumque redit, fictaque verba refert :—

Hic mihi causa morae, vivarum obsessor aquarum ;

Hic tenuit fontes, officiumque meum.

3. Translate into Latin:—

The Sabellian tribes adopted a peculiar system of emigration. In times of great danger they vowed a Sacred Spring, and all the children born in that spring were regarded as sacred to the gods, and were compelled, at the end of twenty years, to leave their native country and seek a new home in foreign lands. The Sabines were distinguished by their hardy and frugal manner of life, and their piety, which sometimes took forms that were exceedingly superstitious.

4. Grammar.

Decline in full : pater ; dies ; vis ; domus ; urbs.

Give the principal parts and meaning of cando ; capio ; redimo ; reperio ; repono.

Give the comparative and superlative and meaning of gracilis ; dulcis ; parvus ; amans ; malus.

(c) Conjugate the *Passé défini* of *naitre* and the Present Subjunctive of *voir*.

(d) Comment on the agreement of *vus* (4, b, 2nd line).

(a) Conjugate negatively the Present Subjunctive of *s'apercevoir*, and interrogatively the Present Indicative of *se flatter*.

(b) Write the full conjugation of the impersonal verb *pleuvoir*.

(c) Translate the indeterminate adverbs of time : *seldom*, *late*, *soon*. Give also their comparative and superlative forms in two different ways.

7. Turn into idiomatic English two of the following extracts:—

(a) Pendant qu'ils oublièrent ainsi les dangers de la mer, une soudaine tempête troubla le ciel et la mer. Les vents déchaînés mugissaient avec fureur dans les voiles ; les ondes noires battaient les flancs du navire, qu gémissait sous leurs coups. Tantôt nous montions sur le dos des vagues enflées ; tantôt la mer semblait se dérober sous

le navire, et nous précipiter dans l'abîme. Nous apercevions auprès de nous des rochers contre lesquels les flots irrités se brisaient avec un bruit horrible.

(b) Allez-vous sortir ? Non, je viens d'entrer. Vous auriez dû vous lever de bonne heure pour achever vos leçons, j'ai dû dépenser beaucoup d'argent, et je n'en gagne que fort peu. Il vaudrait d'entrer. Nous venions de parler de vous. Je devrais accompagner mes sœurs au théâtre. Que veut dire cela ? Cela veut dire qu'il faut me payer ce que vous me devez. Je viens de rencontrer votre frère ; il allait acheter un cadeau pour votre mère. Tout homme bien élevé devrait saluer le roi et se tenir debout en sa présence.

(c) Dans toute société, soit des animaux, soit des hommes, la violence fait les tyrans, la douce autorité fait les rois. Le lion et le tigre sur la terre, l'aigle et le vautour dans les airs, ne règnent que par la guerre, ne dominent que par l'abus de la force et par la cruauté, au lieu que le cygne règne sur les eaux à tous les titres qui fondent un empire de pain, la grandeur, la majesté, la douceur. Il sait combattre et vaincre sans jamais attaquer. Il est roi paisible des oiseaux d'eau.

8 Translate idiomatically *one* of the *two* following passages :— 25

(a) The Plebeians were, however, not wholly without constitutional rights. From an early period they had been admitted to some share of political power. They were enrolled each in his century, and were allowed a share, considerable though not proportioned to their numerical strength, in the disposal of those high dignities from which they were themselves excluded.

(b) The fame of Greece in arms, as well as in arts, was then at the height. Half a century earlier, the career of Alexander had excited the admiration and terror of all nations from the Ganges to the Pillars of Hercules. Royal houses, founded by Macedonian captains, still reigned at Antioch and Alexandria. That barbarians, led by barbarian chiefs, should win a pitched battle against Greek valour seemed incredible.

FRENCH.

Paper-setters— { REV. FATHER E. FRANCOTTE. S.J.
T. S. STERLING. ESQ., M.A.

COMPULSORY PAPER.

Examiners— { REV. FATHER E. FRANCOTTE, S.J.
W. C. WORDSWORTH, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

- | | |
|---|---|
| 1. (a) Write out a short biographical sketch on Lafontaine. | 4 |
| (b) Name a few of his literary productions. | 2 |
| (c) Say a few words about the style of Lafontaine's Fables. | 1 |

2. Translate *three* of the following passages:—

12

- (a) Un jour un coq détourna
Une perle, qu'il donna
Au beau premier lapidaire.
"Je la crois, fine," dit-il.
"Mais le moindre grain de mil
Serait bien mieux mon affaire."
- (b) "Que veniez-vous chercher en ce lieu?" lui dit-on.
Aussitôt il conta l'affaire.
"Merci de moi," lui dit la mère;
"Tu mangeras mon fils! L'ai-je fait à dessein
Qu'il assouvise un jour ta faim?"
On assonna la pauvre bête.
- (c) Un savetier chantait du matin jusqu'au soir:
C'était merveille de le voir,
Merveille de l'ouïr; il faisait des passages,
Plus content qu'aucun des sept sages.
Son voisin, au contraire, étant tout cousu d'or,
Chantait peu, dormait moins encor:
C'était un homme de finances.
- (d) Le vieillard eut raison: l'un des trois jouvenceaux
Se noyer dès le port, allant à l'Amérique:
L'autre, afin de monter aux grandes dignités,
Dans les emplois de Mars servit la république,
Par un coup imprévu vit ses jours emportés;
Le troisième tomba d'un arbre
Que lui-même il voulait enter; . . .

3. (a) Turn into Idiomatic English eight of the following expressions:—

4

S'en donner à cœur joie. Il ne se sent pas de joie. Tant s'en faut.
Maître aliboron. Il n'en peut plus. Léchier l'ours. Faire la figue.
En mère affligée. Grenouilles aussitôt de sauter. Le contre-pied du testament. Bête de somme. Ils vont en campagne. Hors de propos.
Un tiens vaut mieux que deux tu l'auras. Je m'en tais. Ne t'attends qu'à toi seul.

- (b) To whom was dedicated the 1st Fable of Book X, viz. "Les deux rats, le renard et l'œuf"?

1

4. (a) Give the masculine of:—truie, poule, cavale, chatte; the feminine of:—époux, oncle, cheval, loup; the plural of:—canal, régal, bétail, ail.

3

- (b) Translate:—eighty horses, the year nineteen hundred and seventeen, Louis the Fourteenth, it is a quarter to six.

2

5. Translate *three* of the following passages:—

12

(a) Dans la matinée, le lendemain cette réponse si vivement attendue lui fut enfin remise. Le commandant lui disait, en un style sec et laconique, qu'aucun changement ne pouvait être fait aux murs, *fossés* ou fortifications de la citadelle, sans une autorisation expresse du gouverneur de Turin; *que* sur la demande du sieur Charney, il en référerait à Son Excellence; car, ajoutait-il, le pavage d'une cour de prison, c'est encore une *muraille*.

(b) Par habitude, il se mit alors à visiter ce champ de bataille que le sang n'avait pas rougi, et où ne gisait, couchée sur la terre, que la moisson naissante. Les blés, les riz, étaient broyés, hachés. Dans quelques endroits, le terrain, défoncé, déchiré par de profondes

onnières, témoignaient des évolutions de l'artillerie; on vogait ça et là, disséminés, des gants de dragons, des plumets, des épaulettes; puis quelques fantassins, écloppés, quelques chevaux fourbus qui rejoignaient. C'était tout.

(c) Un jour, il entendit une voix, venue d'en haut, lui ordonner d'aller convertir les Vaudois hérétiques, *dont* quelques débris existaient encore, non loin de lui, dans le Valais. Il se mit en route, traversa les pays arrosés par la Sesia, atteignit au sommet des grandes Alpes, du côté du mont Rosa; mais, soudainement enfermé par l'hiver au milieu d'une peuplade de pâtres, il lui fallut passer plusieurs mois *abrité* sous le vaste toit d'un chalet, les neiges amoncelées ayant derrière lui obstrué tous les passages.

(d) "Signor conte," disait Ludovic en étouffant une grosse émotion, donnez-moi votre main; nous pouvons être amis maintenant, *puisque* vous partez, *puisque* vous nous quittez, *puisque* nous ne nous reverrons plus!... Dieu merci! Charney ne l'avait pas laissé achever; "Nous nous reverrons, mon *bon* Ludovic! Ludovic, mon ami!" Et, après l'avoir embrassé, lui avoir pressé la main vingt fois, il sortit de la citadelle.

6. (a) Parse *six* of the italicised words of question 4. 3

(b) Give the principal parts (*temps primitifs*—N.B. *only their 1st person singular in the case of finite tenses*) of:— 3

être, faire, revoir.

(c) Conjugate *dire* in the Present Subjunctive, and *atteindre* in the Present Indicative. 3

7. (a) Translate:—listen to me, he sees us, he praises himself, the man you speak of, somebody told me, both are good, I am ready, they were absent. 4

(b) Correct:—j'ai parlé à lui, j'ai vu son sœur, il est deux à la cloche, tempérance est le meilleur docteur, elle sera ici au vingtième du mois, quelque soit votre intention, j'ai donné lui mon livre, je connais lui, il aime les Français auteurs, j'ai beaucoup argent. 5

(c) Illustrate the formation of the plural in compound words. 4

(d) Name and translate two adverbs belonging to each of the following classes:—adverbs of quantity, of place, of time. 3

(e) Translate the following conjunctions:—Afin que, de manière que, donc, lorsque. Form one short sentence in French with any two of them. 3

(f) What is meant by *temps primitifs* in French? Name them. 6
Illustrate the derivation of tenses from any one of them.

8. Translate *any five* of the following sentences or groups of sentences:— 25

1. It is about to rain; have you no umbrella? No, I have left mine at home.
2. Unfortunately the garrison of the fortress had no provisions enough for a long siege.
3. Do you like to read 'The Arabian Nights'? No, that sort of reading does not please everybody.
4. The Cape of Good Hope was discovered by a Portuguese adventurer.
5. Which are the four points of the compass? North, West, South and East.
6. I have been silent for five minutes; I cannot stand it any longer. I must speak.
7. Why have you not put on your gloves? It is too hot.

8. Don Quixote took it into his head to fight windmills which he had taken for giants.
9. The messenger walked nine miles in three hours; the cyclist rode twenty miles in one hour.
10. What were they doing whilst we were walking round the garden?

FRENCH.

ADDITIONAL PAPER.

Examiner—SAME AS FOR COMPULSORY PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. (a) Write out a biographical sketch on Saintine. What was his real name? 4

(b) Say a few words about his literary productions and style. 4
To what school does he belong? When did he write?

2. Translate three of the following passages:— 6

(a) Peut-être ce faible dérangement à la surface est-il produit par un grand travail dans l'intérieur de la terre? Des conduits praticables existent sous le sol qui va s'ouvrir et lui livrer un passage à travers les champs et les montagnes! . . . Peut-être ses amis ou ses complices d'autrefois employent-ils la sape et la mine pour arriver jusqu'à lui et le rendre à la vie et à la liberté! . . .

(b) Trop fier pour s'humilier devant le gouverneur, mais trop désireux d'accomplir ses projets pour les abandonner si vite, avec un cure-dent le prisonnier fit une plume; de la suie délayée dans de l'eau lui servit d'encre, un flacon doré de sa cassette lui servit d'encrier, et de blancs et fins mouchoirs de baptiste, reste de sa splendeur passée, lui tinrent lieu de papier.

(c) Les premiers rangs de la foule sortie à flots d'Alexandrie, pour conserver une position favorable, se divisaient de droite et de gauche, gagnant les bords du Tanaro et de la Bormida. Il y eut un moment où poussés tout à coup par les rangs suivants, ils débordèrent si rapidement dans la plaine, qu'ils semblaient vouloir envahir le champ de bataille.

(d) Le vieillard tendit la main à Charney. "Le vermisseau, après avoir rampé sur la terre," lui dit-il, "après s'être nourri de feuilles amères, après s'être traîné dans la fange des marais et dans la poussière des chemins, construira sa chrysalide, ceruëil passager d'où il ne sortira que transformé, purifié, pour voler de fleur en fleur, vivre de leurs parfums; . . .

3. (a) What circumstance led Charney to make the reflections contained in question 2 (a)? 1

(b) Parse fully six of the words in italics (Question 1). 3

(c) Give the principal parts (*temps primitifs*) of:—existent (1, 4
a), fit (1, b), semblaient (1, c), tendit (1, d).

4. Translate *two* of the following passages :—

4

(a) Quelle chose par là nous peut être enseignée ?
J'en vois deux, dont l'une est qu'entre nos ennemis
Les plus à craindre sont souvent les plus petits ;
L'autre qu'aux grands périls tel a pu se soustraire
Qui périt pour la moindre affaire.

(b) Belle leçon pour les gens chiches !
Pendant ces derniers temps, combien en a-t-on vus
Qui du soir au matin sont pauvres devenus
Pour vouloir trop tôt être riches !

(c) Sa majesté lionne un jour voulut connaître
De quelles nations le ciel l'avait fait naître.

Il manda donc par députés
Ses vassaux de toute nature,
Envoyant de tous les côtés
Une circulaire écriture
Avec son sceau.

5. (a) Write the heading of the Fable, the *Morale* of which is given 1
in question 4 (a).

(b) Parse *deux* and *tel* in 4 (a).—Give a synonym for the word 2
chiches 4 (b).

SYRIAC.

Paper-setter—A. H. HARLEY, ESQ., M.A.

COMPULSORY PAPER.

Examiner—A. H. HARLEY, ESQ., M.A.

Candidates are requested to give the answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate:-

8

[illegible]

2. (a) Explain the following expressions: $\frac{1}{x^2}$; $\frac{1}{x^3}$. 3

(b) Parse the word اعف. What is the construction after this word?

(c) Write out fully the imperfect, infinitive and participle Pe'al of לָקַח

(d) How is the particle μ^+ composed? 1

المعالي حيا : مع عصفه هافه لاهم اعط اعط اعط انا لاهم
 عصفه حيا : مع عصفه هافه لاهم اعط اعط اعط انا لاهم
 المعالي حيا : مع عصفه هافه لاهم اعط اعط اعط انا لاهم

6 Point the passage in question 5

10

or

(a) Explain the construction المعالي حيا. What is 3
 the meaning of the Pe'al حيا

(b) Attach pronominal suffixes to the infinitive Pe'al of حيا 5

(c) Analyse the following expressions into their component. 2

parts:- حيا لاهم

7 Write out the imperfect Ethpe'al of صخر ; زلق ; زلق 8

8 Translate into Syriac :-

25

(a) And David said, Art thou not a valiant man ? And who is like to thee in Israel? Wherefore then hast thou not kept thy lord the king? For there came one of the people in to destroy the king thy lord. This thing is not good that thou hast done. As the Lord liveth ye are worthy to die because ye have not kept your master, the Lord's anointed.

(b) And Judah and his brethren came to Joseph's house, for he was yet there, and they fell before him on the ground. And Joseph said unto them, What deed is this that ye have done? And Judah replied, What shall we say unto my Lord? What shall we speak? Or how shall we clear ourselves? God hath found out the iniquity of thy servants.

(c) This man's sons and daughters.

BENGALI.

(For Female Candidates.)

Paper-setters— { RAI SAHEB DINESCHANDRA SEN, B.A.
 { BABU JOGENDRANATH BASU, B.A.

COMPULSORY PAPER.

Examiners— { BABU JIBENDRAKUMAR DATTA.
 { MRS. DEBENDRANATH DAS.

Candidates are required to give their answers in their own words
 as far as practicable.

The figures in the margin indicate full marks.

1. Note the points in which the account of the Uttara Ram Charit differs from that of the Ramayana. 7
2. Who is Bashanti? What part does she play in the third act of the Uttara Ram Charit? 6
3. Describe the manner in which the early Maurya Kings used to go to the forest for hunting purposes. 5
4. Translate any two of the following extracts into English :— 20

(a) দেখ দেখ দেখ চরুজ দলে,
 বাজি পৃষ্ঠে সাজি রাণীপুত্র চলে ।
ভাসিছে আনন্দে, ভারত বেড়িয়া
 অণব তরনী কেতনে সাজিয়া
 কৃষ্ণ গোদাবরী গঙ্গার গায় ।

(b) প্রবাল কীটের এই চিত্তচমৎকারিণী মহীরসী কীর্তি পর্যা-
 লোচনা করিতে করিতে বিস্ময় সাগরে নিমগ্ন হইতে হয় । যে সমস্ত মহা-
 সহস্র সহস্র বৎসর পরে ভূমণ্ডলে জন্ম গ্রহণ করিবে, এই ক্ষুদ্র কীটেরা
 এক্ষণে তাহাদের বাসস্থান নির্মাণে নিযুক্ত রহিয়াছে । উহারা নিত্য
 তুচ্ছ জীব, অথচ কিরূপে এই অভাবনীয় ব্যাপার সম্পাদন করে, তাহা
 অতি আশ্চর্য ।

(c) হে বঙ্গীয় যুবকগণ ! তোমরা বয়স্বে বয়স্বে মিলিত হইয়া মনের
 আনন্দে প্রাণ খুলিয়া রহস্যলাপ কর ; নীতিগর্ভ কাব্য ও উপভাস
 পাঠ কর, অথবা অশ্রুসিক্তনয়নে নির্দোষ যাত্রাভিগম সন্ভোগ কর ;
 কিন্তু স্বকীয় কর্তব্য ভুলিয়া আমোদপ্রিয়তার প্রথর স্রোতে ভাসিও না ।

5. Parse the words underlined in the above extracts and expound
 the Samasas in চিত্তচমৎকারিণী, রহস্যলাপ, নীতিগর্ভ and অশ্রুসিক্ত
 নয়ন . 9

6. (a) Turn into prose:—

5

ধন্য কলিকাতা কলি রাজধানী
স্বরপুরী আজি পরাজিলে মানি
হাদে দেখ নিশি লাজে পলায় ।

(b) Parse মানি, হাদে and ধন্য in the above extract.

3

7. Describe the origin and development of the Art of Printing as you find it in your text.

7

8. Correct all errors in the following extract:—

13

আগামী কল্য সন্ধ্যার সময় আমি তাহাদিগের বাটীতে গিয়া-
ছিলাম। দেখিলাম, সেখানে ছাত্র-সভার এক মহতী অধিবেশন
হইতেছে, সভাপতি মহাশয় সর্বদা পূর্বক, অতি ধীরকণ্ঠে ছাত্রজীবনের
উদ্বেগ ও কর্তব্য ছাত্রদিগের হৃদয়ঙ্গম করিতেছেন; ছাত্রগণেরা তাঁহার
মুখাচ্চারিত বাক্যগুলি সতৃষ্ণনে শ্রবণ করিতেছে। শিক্ষক মহাশয়ের
কথায় তাহারা এতই প্রীতি হইতেছিল যে সভা সমাপনান্তে তাহারা
সকলে তাহার পদধূলি লইয়া সশ্রদ্ধা জ্ঞাপন করিল।

9. Translate (a) and either (b) or (c):—

25

(a) দস্যুপতি আর কেহ নহেন, স্বয়ং বিষ্ণুপুরাধিপতি বীর হাযীর।
তিনি প্রতিদিন সভায় বসিয়া ভাগবত শুনিতেন, আবার নিজ দস্যুদল
দ্বারা লোকের সর্বস্ব লুণ্ঠন করিতেন। নিজের প্রজাদের যথাসর্বস্ব
হরণ করিবার প্রবৃত্তি ততটা ছিল না, বিদেশী পথিক ও আগন্তুকগণের
প্রতি তাঁহার লোকদের সর্বদা লক্ষ্য ছিল। তিনি এত বড় প্রবল
পরাক্রান্ত রাজা ছিলেন, যে গোড়ীয় সম্রাটকে কর দেওয়া বন্ধ করিয়া-
ছিলেন, এবং এক সময়ে গোড়রাজধানী আক্রমণ করিবেন, এরূপ সম্ভবও
তাঁহার হইয়াছিল। যখন শ্রীনিবাস, নরোত্তম ও জামানন্দ, গোস্বামী-
দের গ্রহ লইয়া বঙ্গদেশান্তিমুখে যাত্রা করেন, তখন বীর হাযীরের চরগণ
তাঁহাদিগকে অনুসরণ করিতে থাকে। গ্রহগুলি একটা সিদ্ধকে রক্ষিত
ছিল এবং দ্বাদশ জন সশস্ত্র প্রহরীর উপর উহার রক্ষণাবেক্ষণের ভার
অর্পিত হইয়াছিল। দুইজন গাড়োয়ান, দ্বাদশজন প্রহরী ও শ্রীনিবাস
প্রভৃতি তিন জন বৈষ্ণব সাধু, একুনে ১৭ জন লোক সেই গোলকটের
সঙ্গে যাইতেছিল।

(b) সেই গ্রহগুলি বৈষ্ণবগণের প্রাণাপেক্ষা প্রিয় ছিল, সুতরাং পথে
যাইতে যাইতে তাঁহারা সর্বদা সিদ্ধকটির সম্বন্ধে নানারূপ সাবধানতা
অবলম্বন করিতেছিলেন। বীর হাযীরের চরগণের মধ্যে একজন
অগ্রসর হইয়া জিজ্ঞাসা করিল, “এ শকট কোথা হইতে আসিল?”

নিঃসন্দেহচিত্ত সাধুদের একজন বলিল “ইহা বৃন্দাবন হইতে আসিয়াছে” চর জিজ্ঞাসা করিল “সিদ্ধুকটিতে কি আছে ?” সাধু মুহূ হাস্য সহকারে বলিলেন “রত্ন” । তাঁহারা উহা রত্ন বলিয়াই জানিতেন এবং রত্ন বলিয়াই বুঝাইলেন ।

(০) বলা বাহুল্য চরগণ অন্তরূপ বুঝিল এবং রত্নপূর্ণ সিদ্ধুকের সংবাদ বীর হাথীরকে দিয়া গেল ; সেই সিদ্ধুক দ্বাদশ জন সশস্ত্র দৈনিক কর্তৃক রক্ষিত ও অত্যন্ত সাবধানতার সহিত আনীত হইতেছে, একথা বলিতে চরেরা ভোলে নাই । বীর হাথীর গণক ডাকিয়া সেই সিদ্ধুকে কি আছে, গণিয়া বলিতে আদেশ করিলেন, রাজসভার গণক অনেকক্ষণ গণিয়া বলিল, “সিদ্ধুকে বহু ধন আছে, সম্ভবতঃ হীরা ও মুক্তা ।” তখন অভিশয় আনন্দ সহকারে বীর হাথীর সেই সিদ্ধুক লুণ্ঠন করিবার জন্ত দুই শত দস্যু পাঠাইয়া দিলেন ।

BENGALI.

(For Female Candidates.)

ADDITIONAL PAPER.

Examiner—SAME AS FOR COMPULSORY PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Describe the formation of coral islands and give an account of some of them. 6
2. Explain the nature of the punishments known as প্রতিশরণীয় and উপেক্ষণীয় prevalent amongst the Buddhist monks. 6
3. Explain with reference to the context the force of the humour in the query of Janaka—“ওহে গৃতি ! তোমাদের প্রজাপালকের মাতার কুশল ত ?” and its effect on Kausalya. 3

4. Translate into English any one of the following extracts :— 8

(০) ছাত্রগণকে অধিকাংশ স্থলেই শারীরিক স্বাস্থ্য সংরক্ষণে উদাসীন দেখিতে পাওয়া যায় । তাঁহারা বিদ্যাশিক্ষার জন্ত এত অধিক মানসিক পরিশ্রমে রত থাকেন যে শীঘ্রই তাহাদের শরীর কর্ণের অযোগ্য হইয়া পড়ে । অহোরাত্র মানসিক পরিশ্রমে রত থাকিয়া জ্ঞাতসারে বা অজ্ঞাতসারে স্বাস্থ্যের নিম্নম ভঙ্গ করিলে অচিরেই তাহার অনিবার্য কলভোগ করিতে হয় ।

(৬) এই না সেই বনরাজি যেখানে মহর্ষি বাসীকি বাস করেন ? এই অরণ্যেইত শীতাকে পরিভাগ করিয়া লক্ষণ চলিয়া আসিয়াছেন । এই বালক দুইটির আকৃতিতে কেমন আমাদিগের বংশের সমুদায় লক্ষণ দেখা যাইতেছে ! ইহাদিগকে দর্শনাবধি আমার অন্তরে সহসা এই স্নেহের সঞ্চার হইতেছে কেন তাহার কারণ খুঁজিয়া পাইতেছি না ।

5. Rewrite the following in chaste and elegant Bengali :—

7

আমি চাহিয়াছিলাম বলিতে এ কথা তাহাকে । কিন্তু হইলাম নিরস্ত ভাবিয়া পাছে সে মনে ব্যথা পায় । এক দিন সে এসেছিল আমাদের বাড়ীতে, তখন ভাবিলাম বলি এ কথা তাহাকে গোপনে । কিন্তু চাপিয়া ধরিল লজ্জা আমার মুখ । আমি পাড়িলাম নানা কথা, কিন্তু বলা হইল না সেই আসল কথাটি—আমার বৃকে তোল পাড় হইতেছিল বাহা লইয়া ।

6. Correct all errors in the following passage :—

8

তিনি ধনবান্ ব্যক্তি, প্রতি দিবস তাঁহার গৃহে বহু লোক পালন হইতেছে । তিনি এতই উদার যে যাহারা কোন কাজ করে না এবং অতিশয় অলস পরতন্ত্র, তাহাদিগকে তিনি অন্নদান করিয়া থাকেন । এজন্য অনেকে তাঁহার দোশ ধরেন, কিন্তু আমরা বলি এজন্য তাঁহাকে নিন্দাবাদ উচিত নহে ; কারণ দয়ার সম্ভাব এই যে উহা কাহাকে ও বঞ্চিত করে না ; ধার্মিক ও পাপী কেহই চল্লি কিরণ হইতে বঞ্চিত হয় না ।

7. Form adjectives from the following words :—

6

বিষ্ণু, শিব, গণপতি, বাণ্ধা, শরৎ, and নীতি ।

8. Fill up the ellipses in the following extract :—

4

দুর্জন কে না দিলে সে ক্রমে আরও ভয়ঙ্কর হইয়া উঠে ।
দুষ্টের সম্বন্ধে শাস্ত্রে ও বিধান আছে, সুতরাং দুষ্টকে
দিতে নাই । কালসপকে যে ব্যক্তি হৃৎ দ্বারা করিয়াছিল,
সে তাহাকেও দংশন করিতে ছাড়ে নাই, এরূপ গল্প আছে ।

9. Translate any two of the following extracts into English :—

30

(a) তোমরা তাহাকে খুব ভাল লোক বলিয়া জান । সে কাহাকেও কটু কথা বলে না ; যদি কেহ তাহার প্রতি রাগ করিয়া কথা বলে, তবে সে তাহা নীরবে সহ করে ; সে অনেক সময়ই ধর্মের কথা শুনায় এবং পরকে সাধু হইবার উপদেশ দেয় । কিন্তু আমি তাহাকে তোমাদের অপেক্ষা একটু ভাল করিয়া চিনি ; তাহার বাহিরটা যত মিষ্ট, ভিতরটা সেরূপ নহে । সে খুব উচ্চ স্বদে টাকা ধার দেয় এবং সেই স্বদের একটা পরমাণু ছাড়ে না ।

(b) আমি অনেক সময় দেখিয়াছি তাহার নির্দয় ব্যবহারে উপরন-
ক্লিষ্ট অগোপণ শিশু নইরা নিভাত নিঃসহায় গৃহস্থ চকের অল দুহিতে
দুহিতে পৈত্রিক ভিটা ছাড়িয়া গিয়াছে। সে পরের টাকা একাশ্য
ভাবে চুরি করে না সত্য, কিন্তু তাহার বন্ধুগণের মধ্যে বাহারা বিশেষে
থাকেন, তাঁহারা তাহাকে সাধু মনে করিয়া গৃহ নির্মাণ ও পুষ্করিণী ধনন
প্রভৃতি বাবদ প্রায়ই অনেক টাকা পাঠান। ইষ্টকবিক্রেতা হইতে
আরম্ভ করিয়া সামান্য মজুর প্রভৃতি সকলের সঙ্গে তাহার গোপনীয়
বন্দোবস্ত আছে।

(c) তাহার হাতে যে টাকা খরচ হয়, তাহার অন্ততঃ এক-তৃতীয়াংশ
সে নিজের আত্মসাৎ করে। এদিকে টাকা অতি জঘন্ট বলিয়া সে নিজ
হাতে তাহা স্পর্শ করে না। সে প্রায়ই বলিয়া থাকে অর্থ সমস্ত
হুঃখের মূল, অথচ তাহার মত অর্থলোলুপ লোক খুব কমই দেখা যায়,
দরিদ্র হুঃখী তাহার বাড়ীতে ভিক্ষা চাহিতে গেলে সে তাহাদিগকে
খাটিয়া খাইতে উপদেশ দিয়া বিদায় করিয়া দেয়। অন্ধ ও খোঁড়া
ভিক্ষুক দেখিলে, কোন্ পাপে তাহার চক্ষু গেল, কেন সে খোঁড়া হইল,
সে সম্বন্ধে এত প্রশ্ন করিতে থাকে যে ভিক্ষা পাওয়া দূরে থাক, সে
তাহার হাত হইতে পলাইতে পানিলে বাঁচে।

10. Explain in simple Bengali:—

25-

তোমরা নীলাশ্বরী দেখিয়াছ, মনে কর সেই নীলাশ্বরী ঝটিকার
উড়িয়া যাইতেছে, তাহা হইলে নীলাশ্বুর চঞ্চল তরঙ্গলীলা কতকটা
হৃদয়ঙ্গম করিতে পারিবে। তোমরা নীলাশ্ব পত্রের অন্তরালে রাশি
রাশি শুভ্র যুথিকা ফুটিতে দেখিয়াছ, উহা হইতে নীল সমুদ্রের তরঙ্গ
প্রক্ষিপ্ত শুভ্র ফেনরাজি কতকটা অহুমান করিতে পারিবে। তোমরা
প্রশান্ত গগনের নীলিমা দেখিয়াছ, সেই নীলিমার সীমা নাই, তাহা স্বর্ণ
জুড়িয়া আছে, ধরাতল স্পর্শ করিয়া আছে। সমুদ্রের গাঢ় নীলবর্ণের
সেইরূপ সীমা নাই, যতদূর দৃষ্টি চলে উহা ততদূর প্রসারিত, সেই নীল
বর্ণে চক্ষের দৃষ্টি ভরিয়া যায়, আর কিছু দেখিবার সাধ থাকে না। আর
সেই অসীম নীলবর্ণের মধ্যে ফেন-ধবলিত তরঙ্গরাজির উত্থান পতনে যে
অস্ফুট গর্জন নিরবধি শুনিতে পাওয়া যায়, তাহা পরম বিস্ময়কর।
সমুদ্রের শোভা বর্ণনা করিতে যাইয়া বাল্মীকির লেখনী বিস্ময়ে হার
মানিয়াছে, আর কোন উপমা খুঁজিয়া না পাইয়া তিনি লিখিয়াছেন
সমুদ্রের একমাত্র উপমাস্থল আকাশ এবং আকাশের একমাত্র উপমাস্থল
সমুদ্র। কবি বাইরণ প্রশান্ত সমুদ্রকে স্পর্শ করিয়া বলিয়াছেন, 'এ
যেন সুমন্ত সিংহের শুভ্র জটায় হাত দিতেছি, যদি জাগিয়া উঠে তবে
সমুদ্রও সিংহের মত ভয়ঙ্কর হয়।'

HINDI.

(For Female Candidates.)

Paper-setters—{ BABU BAIDYANATH NARAYAN SINGH, M.A.,
B.L.
BABU PURANCHAND NAHAR, M.A.
BABU SHIBNANDAN RAY.

COMPULSORY PAPER.

Examiner—BABU PURANCHAND NAHAR, M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate the following extracts into English :—

20

(a) शरभङ्ग मुनिने रामचंद्रजी से कहा कि आप के आनेका समाचार हम अपने तपोबलसे पहलेही जान चुके थे और यह भी निश्चयही था कि आप आने वाले हैं। आपके दर्शनोंकेही लिये हम अभी यहाँ ठहरे हुए हैं, नहीं तो हम कभीके स्वर्ग चले गये होते। आपने बड़ी कृपा की जो हमें दर्शन दिया। अब हम सब कामोंसे कूट चुके। अब, आपके देखतेही देखते, हम योग-द्वारा इस शरीर को छोड़ कर स्वर्ग को जाते हैं। आप इहाँ से सुतीक्ष्णजी के आश्रमको जाइएगा। वहाँ आपको सब तरह का सुख मिलेगा।

(b) प्रलय कालके जलद सम, रूप घोर विकराल।

गर्जि घोर रामहिं सुचिर, चलो अंजनो लाल ॥

जामवंतके बचन सुहाये, सुनि हनुमान हृदय अति भाये।
तब लगि मोहि परेखियहु भाई, सहि दुख कंद मूल फलखाई।
जब लगि आवी सीतहि देखी, होय काज मन हर्ष दिखेखी।
अब कहि नाय सवन कहँ माथा, चलेउ हर्ष हिय धरि रघुनाथा।

2. Explain in your own vernacular :—

15

सचिव देव गुरु तीनजो, बोलहिं प्रिय भय आश।
राज धर्म तनु तीन कर, होई वेगही नाश ॥
खोज राख्य कहँ वनी सहाई। अस्तुति करहिं सुनाइ सुनाई ॥

अवसर जानि विभीषण आया । आता चरण ग्रीस तेहिं नाया ॥
 पुनि शिर नाइ वैठि निज आसन । बोला बचन पाइ अनुशासन ॥
 जो कृपालु प्रकटु भोहि बाता । मति अनुरूप कहूँ मैं ताता ॥
 जो आपन चाहहु कल्याणा । सुयश सुमति शुभगति सुखनाना ॥
 तो पर नारि खिलार गुसाईं । तजो चौथि चंदाकी नाई ॥

काम क्रोध मद लोभ खड, नाथ नरक कर पंथ ।

खड परिहरि रघुवीर पद, भजहु कहहिं सद्ग्रंथ ॥

3. Parse the underlined words in (2). 5
4. Why the Canto is called सुंदर कांड ? 5
5. Give the legend of नैनाक. 5
6. Give general rules of forming feminines from masculine in Hindi and quote examples. 10
7. How are degrees of comparison expressed in Hindi ? Illustrate your answer with examples. 10
8. When does a verb agree with its object ? Give examples. 5
9. Translate into English :— 25

जब सूरज डूब गया और अधेरा हुआ और व्यालू करके सब साथके लोग सो गये, तब बादशाहने वजीरसे कहा—“वजीर ! इस तमासेका भेद जानने के लिये मैं व्याकुल हूँ । जब तक इसका भेद नजान लूँ तबतक मुझे चैन नहीं पड़ेगा । इस लिये तुमतो यहां की खबरदारी करो और मैं अकेला जाता हूँ और इस भेद की खोज लगाता हूँ । तुम मेरे जाने की बात किसी से कहना मत ।” वजीर बुधिमान था—उसने बादशाह को ऐसे काम के लगने से मना किया, पर राज हठ, वाल हठ और त्रिया हठ विख्यात है । सो वह बादशाह हठ करके अकेला अपने डेरे से रात को बाहर हुआ और हाथमें नक्की तलवार लिये हुए उस पहाड़ी के चौटी पर चढ़ गया ।

HINDI.

(For Female Candidates.)

ADDITIONAL PAPER.

Examiner—SAME AS FOR COMPULSORY PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into Hindi any two of the following extracts :—

(a) O king! listen to the instructive story which I am about to relate. When man is born he does not bring anything with him into the world, neither does he carry anything away with him when he dies. The object of existence is that man should do something worthy of notice, and he will be duly compensated for his actions, whether good or bad. As life is transitory, a person should make a good figure in this world, so that he may enjoy a good name here and eternal felicity hereafter.

(b) "Tell me, stranger," faltered the dying boy, "what cause of hatred have I given you? I who love all living creatures; I from whom the wild animals do not flee. Willingly I have done wrong to none. I live here with my aged father; he is blind, and I wait on him. I came here with my pitcher to seek water for him. Alas! when I am dead, who will care for the old blind man? Oh, cruel stranger, why have you been thus pitiless?"

(c) A fox, hard-pressed by the hounds after a long run, came up to a man who was cutting wood, and begged him to afford him some place where he might hide himself. The man showed him his own hut, and the fox creeping in, hid himself in a corner. The hunters presently came up and asked the man whether he had seen the fox. "No," said he, but pointed with his finger in the corner. They, however, not understanding the hint, were off again immediately. When the fox perceived that they were out of sight, he fled away.

2. Compose sentences with :—

1

आत्मज्ञान, धृतपूर्व, धर्मानुष्ठान, वात्सलाय, सहानुभूति, प्रायश्चित्त, विश्वासपात्र, चैतन्यशून्य, समयकूल and पक्षपातिनी।

3. Rewrite the following, correcting all errors :—

10

मंगलमें अमंगल हो गई। कहां पुत्री होनेस हर्ष बनाई जा रही या कहां दुःखका समुद्र उमड़ आई। पुत्री होनेमें ठीक आठवें दिवस श्रीमती बीमार होगई सेवा कि प्रायः सूतिकापट में हो जाती हैं। श्रीमतीको वित्त हो वार की दुर्घटनाओंसे विफल हो गई थी। वह एकवार इस दुर्घटना को देखकर अवित्त हो गई। उसी वने से उन्हें छुआर आई। इसी स्वर में दुर्घटना स्थानोंने उन्हें बरा बिछा दी। सभी कार्य बने बनाया बिगड़ी गई।

4. Fill up the ellipses in the following:—

5

के कारण इन दिनों से बहुतही कम वस्तुएं
 प्रारही हैं। कपड़े बुननेके लिये द्विदेशसे जो प्राप्ते थे उनका
 तो बहुतही कम हो है। फलतः इस समय यदि
 कृषक से सूत और दस्तकारी के का
 किया जाय तो की दशा बहुत कुछ सकती है। एक
 नहीं इस समय अनेक ऐसे हैं जिनकी जनताका
 ही नहीं गया। यदि लोग सामयिक पर हैं तो
 उनकी इरिद्धता कुछ हो सकती है।

5. Write an essay in Hindi on *one* of the following subjects:—

30

(a) Female education—different views on the subject—it is a raging question in Europe—its importance in this country—its effect on the mind and the body—contrast between an educated and an uneducated lady—its advantages and disadvantages—your opinion on the subject.

(b) Flattery—what it is—motives of the flatterer—effects of flattery on those who are deceived by it—the age that is most likely to suffer from its influence—concluding remarks.

ASSAMESE.

(For Female Candidates.)

Paper-setter—BABU SATYANATH BORAH.

COMPULSORY PAPER.

Examiner—L. N. BEZBAROoya, Esq., B.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate the following extracts into English:—

(a) শূন্য শরীর আর শুকান ঠাই এই দুয়োৱো ভিত্তরত বিশেষ 10
 সম্বন্ধ আছে। জেকা ঠাইত মাছহে কেতিয়াও পা তালে রাখিব
 নোৱাৰে। বাহ্যৰ আনবোৱা আহিলা সকলো থাকিলেও কেবল
 জেকা ঠাইৰ দোষতেই ঘনোপত্তি মাছহৰ নৱিৰা হয়। ইয়াৰ কাৰণ
 অলপ গৰি চালেই বুজিব পাৰি। শুকান ঠাইত বৰকৈ মলি বহু

নাথায়, যি অলপ মলি তাত পরে, সি মচোতে সারোভেই যায়। কিন্তু জেকা ঠাইৰ মলি হুঠে, সৈ তাত লেপেট খাই ধৰে, আৰু লাহে লাহে পচি ওচৰৰ বায়ু দূষিত কৰে। জেকা ঠাইৰ পৰা পুৰা গধূলি যি ভাগ ওলায় সি বিৰাক্ত, গাত লগিলে এটা নহয়, এটা হুঙুৰ কৰে। এই দেখি পৰা পক্ষত সততে শুকান ঠাই বিচাৰি থৈ কয়ী উচিত।

(b) মহাপুৰুষ শঙ্কৰদেৱ শাৰীক্ষিক বলভো এজন অস্বাধাৰণ বীৰ-পুৰুষ আছিল। যোজন কালত তেওঁ একোটা খেদি অহা বাঁৰ গন্ধক শিকত ধৰি লুটিয়াই পেলাইছিল। কিন্তু, তেওঁৰ ধৰ্মতাব তাতোৱে এবল হোৱাত, তেওঁৰ অন্তৰৰ মহৎ গুণবিলাকে তেওঁক মানসিক উন্নতিৰ পথেৰে বাট লোৱালে। শঙ্কৰদেৱ দেখাত যেনে শ্ৰীমন্ত আৰু ধূলন্তৰ পুৰুষ আছিল, তেওঁৰ হিৰায় বহল সহাহুত্বতিয়েও সেই দৰে জগতক মোহিত কৰিছিল। এই মহৎ গুণৰ বলোৱেই তেওঁ চাৰি শ বছৰৰ পূৰ্বে অসম দেশক তেওঁৰ অনুসরণ কৰাইছিল।

2. Parse the words underlined in the above extracts. 5

3. Turn into prose order :— 3

শেৰুৱা শিলত গজা ফুল বনৰীয়া
আখা-আখি চকুৰ আঁৱত,
ধুনীয়া ভৱাৰ দৰে একেটি যেতিয়া
তিৰ-বিৰ জলে আকাশত।

4. Rewrite the following extract in plain Assamese :— 5

চৰিত্ৰবান মহাপুৰুষৰ উদ্যম আৰু শ্ৰমশীলতা মাহুৰ সমাজত অভগন কীৰ্ত্তি। মাহুৰ কালপ্ৰাপ্ত হৈ নেদেখা হয়, কিন্তু চিন্তা আৰু কাৰ্য্যৰ চিন স্বজাতিৰ মনত মহা নোযোবাকৈ চিৰকাল জলি থাকে; আৰু সেই দৰেই ভবিষ্যৎ বংশৰ চৰিত্ৰ গঠনৰ বাবে তেওঁৰ মনৰ তেজ দীৰ্ঘকাল ৰক্ষিত হয়।

(a) What parts of speech are the words underlined in the above extract? State what addition and alteration will be necessary if they are taken as nouns. 2

5. Explain what you understand by নৈতিক বল, and compare the নৈতিক বল of Surajuddin, the Judge, with that of Giyasuddin, the Sultan, as shown in the texts. 7

6. Explain with reference to your texts the imports of the following proverbs :— 8

(a) অভ্যাগৰ নৱ কৰ্ম পৰ্বে কৰে শয়।

(b) লাগি থাকিলে লাগি নাথায়।

7. Translate the following passages into English :—

(a) ১৮৬১ চনৰ ডিচেম্বৰ মাহত এলবাৰ্ট স্বৰ্গী হৰ। পিতৃয়ে 15
স্বৰ্গারোহণ কৰাৰ পিচত প্ৰিন্স অব্‌ ওয়েলচৰে ৰাজকাৰ্য্যত মন দিবলৈ
ধৰে। ইয়াৰ আগৰে পৰা তেখেতে বাৰ্ভ মহাৰাণীক সহায়তা কৰিছিল।
১৮৬৪ চনত কছিম্বাৰে সৈতে ইংলণ্ডৰ যুদ্ধ হয়। সেই যুদ্ধত ইংলণ্ডৰ
জয় হোৱাৰ কাৰণে পাৰ্লামেণ্ট মহাসভাৰ পৰা মহাৰাণী ভিক্টোৰিয়াক
এখন অভিনন্দন পত্ৰ দিয়ে। কোঁৱৰ সেই দিনতে মাতৃৰ লগত ৰাজ-
সিংহাসনত উপবেশন কৰিছিল। এয়েই প্ৰথম সিংহাসনত আৰোহণ।
এই দিনৰ পৰাই কোঁৱৰে ৰাজকাৰ্য্যত ক্ৰমে ক্ৰমে মন দিয়ে। কিন্তু
পিতৃদেৱতাৰ স্বৰ্গারোহণৰ পিচৰ পৰাহে আচল মতে যুৱৰাজৰ কাম
কৰে। সজাজী ভিক্টোৰিয়া স্বামীৰ শোকত অধিৰা আছিল, গতিকে
নিজৰ উপযুক্ত পুত্ৰক বিধি মতে ৰাজকাৰ্য্য চলাবলৈ আদেশ দিছিল।
যুৱৰাজৰ ঘৰ চণ্ডিহেমত আছিল। তাত তেখেত পশু পালন কৰি,
পশুপালনৰ নিয়ম প্ৰণালীবোৰ সকলো মানুহক বুজাই দিছিল। এই
জন্য যুৱৰাজৰ ঘৰত যেনে খীৰভী গাই আৰু বাঁৰ গৰু আছিল, তেনে
গৰু আন কাৰো নাছিল। যুৱৰাজৰ এজনী গাই গৰুৰ বেচ ৭৭১ টকা
আৰু এটা বাঁৰৰ বেচ ১২৮৪ টকা আছিল।

(b) হৰদত্ত তেওঁৰ পৰিবাৰ আৰু লগৰীয়া সকলোৱে সৈতে পলাই 10
গৈ ভোটৰ পৰ্বতৰ দাঁতিত এডোখৰ হাবিৰ মাজত লুকাই ৰল। বৰ-
ফুকনে ইপিনে মানুহ যাক যাক পালে সিহঁতক ধৰি দণ্ড কৰিলে, আৰু
তেওঁক ধৰিবলৈ চাৰিও ফালে মানুহ পঠিয়ালে। তেওঁ ভোটানৰ ফালে
পলাই যোৱা বাতৰি পাই ফুকনে স্বয়ং তেওঁক খেদি গল। কিন্তু তেওঁ
যেনে ঠাইত আশ্ৰয় লৈছিল তেনে ঠাইৰ পৰা তেওঁক বিচাৰি উলিওৱা
টান কাম। বাঘ ভালুক আদি প্ৰকৃতিৰ সন্তানবিলাকেৰে সৈতে হৰ-
দত্তই কাল কটাবলৈ ধৰিলে। মানুহৰ লগসঙ্গতকৈ বনৰীয়া জন্তুৰ
লগসঙ্গ তেওঁৰ পক্ষে সুখকৰ হ'ল। ওচৰচুবুৰীয়া আৰু বন্ধুবান্ধৱে
আবৃত থাকি তেওঁ যিমান অসুখ পাইছিল, বনৰীয়া জন্তুবিলাকেৰে আবৃত
থাকি তেওঁ সিমান সুখ পাইছিল। ঘৰতকৈ পৰ্বতৰ গহৱৰ তেওঁ শ্ৰেষ্ঠ
জ্ঞান কৰিছিল।

Or,

(c) আশাযত অনেক বৰলোক উত্তৰ হৈছিল, কিন্তু সেই সকলৰ 10
জীৱন-চৰিত প্ৰায়েই নাই, অসমীয়া ভাষাত যিবিলাকৰ জীৱন-চৰিত
আছে, সেই বিলাকতো বহুত রংচং আছে। অসমৰ বুৰঞ্জীৰো সেই
অৱস্থা। ইংৰাজ জাতিৰ যেনে ভাল জীৱন-চৰিত আৰু বুৰঞ্জী আছে,
তেনে বোধ কৰোঁ কাৰো নাই। ইংৰাজৰ আৰ্হি লৈ আমিও বুৰঞ্জী

আৰু জীৱন-চৰিত লিখিবলৈ ধৰিব লাগে। মাহুহ মাজুৱে অলপ বা অধিক দোব থাকে, দোব নথকা কোনো নাই। এতেকে যি মাহুহৰ দোবতকৈ ওপৰ ভাগ সৰহ, তেনে মাহুহৰেই জীৱন-চৰিত লিখা যাব পাৰে, আৰু বিদেশী মাহুহৰ জীৱন-চৰিততকৈ অসমীয়া মাহুহৰ জীৱন-চৰিত অসমীয়াৰ পক্ষে বেছি লাগতিয়াল; কিয়নো, অসমীয়াৰ আহি অসমীয়াই বেগতে লব পাৰে। সেই দেখি অসমীয়ালৈ অসমীয়া বৰলোকৰ জীৱন-চৰিতহে লিখা উচিত।

8. Account for ৰ in কৃপণ, লক্ষণ, ত্ৰাণ, পুণ্য and কল্যাণ; and for ব in 10
পৰিষ্কাৰ, কষ্ট, ঐচ্ছাৰণেয়, হৰ্ষ and ভাব।

9. Expound the *samases* :—

5

জপাপূৰণি, আভোলা, গছপকা, পূবমুৱা, কুশাসন and হাতদীঘল।

10. Correct the mistakes, if any, in the following passage :—

10

মই ভটিয়াই যাই গুৱাহাটীত ফুকনৰ লগত দেখা কৰিলোঁ।
সেইথেকে কৈছিল বোলে এই বাৰ তোমাৰ স্তনীয়েৰ হৃদয়নিক পঢ়িবলৈ
কলিকতালৈ পঠিয়াব। মোৰ মনেৰে হলে সিহঁত বৰ সৰুৱে আছে,
এজনে দহত ভৰি দিছে মাথোন, সি জনু তাতোকৈ সৰু। আৰু
হুৰহুৱমান গলে তাইতক মই বা তুমিয়েই কলিকতাত থৈ আহিব।

ASSAMESE.

(For Female Candidates.)

ADDITIONAL PAPER.

Examiner—SAME AS FOR COMPULSORY PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Explain the following passages, elucidating the similes indi- 10
cated in the underlined expressions :—

(a) বাস্তৱতে, নিজৰ শক্তিৰ ওপৰত নিজক থানিকা দিব নোৱা-
ৱিলে, মাহুহ নিচেই অপদাৰ্থ। সজ ইচ্ছা আৰু হিতাহিত জ্ঞান এই
দুইৰ যুটীয়া বলৰ দ্বাৰা চালিত নহলে, মাহুহৰ জীৱন গতিহীন
ভোগ পানীৰ দৰে নিভাস্ত অনিশ্চিত আৰু উদ্বেগবিহীন।

(b)

মোর এই বুকখনি ছবির উঁয়াল,
ছবি তোলা পেয়া—উতালিকে বয় এটি
 হিয়াত পৰিলে ছাঁয়া, —মন মোহা চাব।
 নহলে কিয়নো বাক সেই দিনা দেখা
 এখনি আকৃতি,—ইমানৰ ভিত্তত—
 * * * * *
 নেপাহৰো—বহিলে হিয়ার মাজত।

2. Narrate the incidents of the life of Emperor George V, which are given in your text, as a proof of his extreme civility (ভদ্রতা). 5

3. State the true ways of economy, and explain how miserliness and thriftlessness lead to the same result in life. 5

4. Translate the following passages into Assamese :— 15

(a) All these circumstances and the previous humiliation offered by Sib Singh and his queen goaded the Moamorias to a resolve upon destroying the Ahom kingdom root and branch. The Moamorias collected 12,000 troops, and placed them under the command of Mohan Mala Deo. Nahor Khora and Ram Moran were appointed officers under Mohan Mala Deo. Kirti Chandra Bar Barua sent a body of troops to quell the rising: A bloody battle ensued in front of the city. Nahor Khora came to the field, accompanied by his wife Radha Rukmini. Radha Rukmini is a famous name in the history of Assam. The Moamorias fought with bows, spears and javelins. The Ahoms fought with guns. But the Moamorias fought so fiercely that the Ahoms found themselves unable to stand. The curious feature of this battle is the fact that Radha Rukmini herself took active part in the operation. She fought with her bow with great dexterity and wrought havoc among the Ahom troops. The Ahoms continually aimed their guns at this woman, but she could not be hit. At length the Ahoms became panicstricken and fled.

(b) You are now come to an age capable of reflection, and I hope you will exert it for your own sake, in the search of truth and sound knowledge. I will confess that it is not many years since I have presumed to reflect for myself. Till sixteen or seventeen I had no reflection, and for many years after that I made no use of what I had. I adopted the notions of the books I read, or the company I kept, without examining whether they were just or not. But since I have taken the trouble of reasoning for myself you cannot imagine how much my notions of things are altered, and in how different a light I now see them from that in which I formerly viewed them. 10

Or,

(c) I was invited to dine with the Grand Vizier's lady, and it was with a great deal of pleasure I prepared myself for an entertainment which was never given before to any Christian. I went in a Turkish coach. I was met at the door by her black eunuch who conducted me through several rooms, where her she-slaves, finely dressed, were ranged on each side. In the innermost I found the lady sitting on her sofa, in a sable vest. I was surprised to observe so little magnificence in her house, the furniture being all very moderate. She guessed at my thoughts and told me that she was no longer of an age to spend either her time or money in superfluities, that her whole expense was in charity, and her whole employment praying to God.

5. Translate any two of the following passages into English :—

(a) পৃথিবীর ঠাণ্ডে ঠাণ্ডে প্রায় মাহুহর দরে পা-পা ধকা এবিধ জন্ত আছে, তাকে বনমাহুহ বলে। বনমাহুহ, হাবিত ধকা, কাপোর পিঙ্গিন নজনা অসভ্য মাহুহ নহর, সি প্রায় মাহুহর নিচিনা এবিধ বান্দর। বান্দরর নেজ আছে বনমাহুহর নাই। বান্দরে হুটা ভরিত ভিরি দি মাহুহর দরে খোজ কাটিব নোৱারে, বনমাহুহে ঠিক মাহুহর দরে নোৱরিলেও অলপ পারে। মাহুহর দরে বনমাহুহর হুই পারিত ৩২ টা দাঁত আছে। মাইকী বনমাহুহে সাধারণতঃ এটা পোৱালি পায়। মাইকী মাহুহর দরে মাইকী বনমাহুহর হুটা পিৱাহ আছে, তাকে পোৱালিয়ে গিৱে। বনমাহুহে মাহুহর দরে কথা কব নাজানে, বান্দরর দরে মাভ মাভে। সি বান্দরর দরে গছ বগোৱাত বর পাকৈত। বনমাহুহে মাছ মজহ নাধায়, গছর ফল মূল খাই প্রাণ ধারণ করে। বান্দরর দরে তার গাত নোম আছে। বান্দরর নিচিনাকৈ পুহিলে বনমাহুহো পোহনীয়া হয়, আক মাহুহর দরে কাম কৰিবলৈ শিকে।

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(b) এদিন অসম ৰজাৰ হাতী ধৰিবলৈ মন হল। ৰজাই ব্ৰহ্মপুত্ৰৰ উত্তৰ পাৰলৈ হাতী ধৰিবৰ নিমিত্তে লোকজন পঠিয়ালে। ভূঞাসকলক হাতী খেদা পান দিলে। শত্ৰুৱৰ বংশীয় ভূঞাসকলে বি কালে পাল পাইছিল, হৰ্ষাগ্যবশতঃ সেই কালেই হাতী ভাগি গল। এই দোষত শত্ৰুৱেদেৱকে আদি কৰি ভূঞাসকলক ধৰি নিবলৈ ৰজাৰ আদেশ হল। শত্ৰুৱেদেৱ আৰু আন আন ভূঞাসকল পলাই সারিল, কিন্তু শত্ৰুৱেদেৱৰ জোঁড়াসকল হৰি আৰু মাধবদেৱ ধৰা পৰিল। ৰজাই মাধৱদেৱক লৱা তিৱোতা নথকা মাহুহ দেখি এবছৰ বন্দী কৰি থৈ এৰি দিলে, কিন্তু হৰিক কাটালে। অসম ৰজাৰ এই দোঁৱান্ধ্যত স্থগা প্ৰকাশ কৰি শত্ৰুৱেদেৱে উজনি আসাম পৰিত্যাগ কৰি জাতি কুটুম্ব সকলেৰে সৈতে ভটীয়াই গুচি গল।

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(c) মোৱ বজু এজন্য সেই গাঁৱৰ পৰা হুই মাইল মান দূৰৈত আছিল। পৰশুই আবেলি মোৱ স্বামীয়ে মোক কলে, বোলে 'আজি মই তোমাৰ বজুৰ ঘৰলৈ গৈছিলোঁ। তেওঁৰ বৰ নৱিয়া, তোমাক মাতিছে, নিশা দুয়ো যাওঁ বলা।' এই বুলি কৈ এন্ধাৰ হলত স্বামীয়ে মোক লৈ আহিল। কিছুমান বাট আনি মোৱ চকুত তেওঁ তাতকৈ এখন কাপোৰ বান্ধিলে। মই তেতিয়া সংশয় কৰি তেওঁক অনেক কাৰো কোকালি কৰিলোঁ, কিন্তু তেওঁ মোৰ কথা হুশনিলে। মোক বলেৰে টানি লৈ গৈ হাবিত সুমাই থৈ তেওঁ কেনিবা গুচি গল। মই নিশাটো তাতে বনবাস খপিলোঁ। পূৱা কোনো মতেৰে চকুৰ কাপোৰ

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জুচাই এই খিনি পাইছোঁহি। সীতাদেবীর বনবাস বিবাতাই মোর
কপালত লেখিছিল বুলি মই কেতিয়াও ভবা নাছিলোঁ।

6. Explain the appropriate use of হৈত and সকল as signs of the Plural Number. Is it correct to say দেউতাহৈত? Give reasons for your answer. 5

7. Give the feminine forms of:—গোসাঁইজনী, কোদাটো, লরাটি, বোন্দা মেকুরি, মগনৌয়া, বেজ, উল্লা-দঁতা। 5

8. Decline এখেত, taking it as a Personal Pronoun. 5

9. Name the তদ্ধিত particles which are used in forming an abstract noun from an adjective or a class noun, and give the abstract noun forms of the adjectives:—সুন্দর, বর and ভাল। 10

KHASI.

(For Female Candidates.)

Paper-setters.—REV. J. C. EVANS.

COMPULSORY PAPER.

Examiner—REV. J. C. EVANS.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Describe the character of "A Virtuous Woman." 15
2. Narrate the story of "U Kohtympan." 15
3. Give the meanings of the following synonyms:— 20

Kynjih and Kynthih, Kynhiet Kyntheit & dumok. Ranab, Sharing & padun. Tai, Kyndeh & peh. Phyrnai, Tyngshain & thaba. Mait & thiew. Pdem & pung. Khoh & shrat. Rykhiang & Ryngkhiang. Khlaw & rai-eh. Tyrha, lyng-a & pisa.

4. Compose sentences showing the different meanings of the following words:—Shen, nang, sah, da, dei & beh.

5. Explain the following with reference to the context:— 12

Pat ka kong 'ri, San ka kong 'a, Syat ia khalai.

Iwei i syntiew i shad ha Sla um, pynieng ia u Tyngshop, and ka nakra ki Syiem.

6. Translate the following into English:—

(a) Don saw tylli kiei kiba rit ha ka khyndew hynrei ki long kiba stad shi kaddei: ki dkhiew kim long ki briew kiba khlain, pynban ki khreh lypa ia la ka Jingbam Mynliur; Ki heiraks ki long tang ki pait tlot, pynban ki thaw ia la ki ing ha ki Mawsiang; Ki puit kim don U Syiem pynban ki ia leit mih baroh ha ki kpnhun; U Niangbshiah u bat da la ki kti bad u don ha ki ing Syiem. Don lai tylli kiei kiei kiba i shingeng ha la ka Jingiaid, shisha saw tylli kiba i

Shyngeng ha kaba isid : U Sing uba khlain tam ha pdeng ki mrad khlaw, bad um phai na uno uno ruh, U Ksew beh, U Langsohmoh ruh, bad U Syiem bym lah ieng ialeh la u.

(b) Ka Jynroh. ka la sah jingim noh ba bneng naduh kata ka por ba la ieit phong ka Nam shata ; bad ka sah ka jing isshun ia Ka Sngi bad ia U Bnai, U Kur ka Sngi, naba ka sngi ka la thang ha ding ia ka tang naba ka kwah ba ka Nam kan sah bha briew ban dup ibha U Khun la jong, kumta ka thma Ka Jynroh ne Hynroh bad ka Sngi bad u Bnai ka shu sah haduh mynta. Haduh mynta rub teng teng ba Ka Jynroh ka ju dait ia Ka Sngi bad ia U Bnai.

(c) Kumta ka Pyrthei ka nang tyllun sha ka Thma, bad ki Khun Khasi jong ngi ki la leit shata, bad ki nang leit. Ka ri jong ngi ka dei ban pyrkhat na ka bynta jong ki bad jong ki ba ha ing jong ki. Kane ka thyma ka la ktah ia u thied Snam ka ri jong ngi ruh. Ki Kmi ki lā aiti ia la ki Khun bad ki Kur la ki ba ieit. La ngi kiba sah ha la ka ri ngim lah ban leh shibun, hynrei katto katne ngi lah na ka bynta la U Syiem Patsha, la ka ri, bad na ka bynta la ki para ri kiba la leit sha khmat Thma, Ki kin shah Sain kum ha ka lawar ding, bad kin wan phai pat kiba la phrang bha, kumta ngi ngeit.

ENGLISH INTO BURMESE.

(For Female Candidates.)

Paper-setter—MR. YÉO WUN SIN.

Examiner—MAUNG KO KO GYI, B.A.

The figures in the margin indicate full marks.

1. Translate any *two* of the following passages into Burmese:—

(a) On one occasion I saw, a long way off, a large crocodile, 20
twelve or fifteen feet long, lying asleep under a perpendicular bank about ten feet high, on the margin of the river. I stopped the boat at some distance; and noting the place as well as I could, I took a circuit inland, and came down cautiously to the top of the bank, whence with a heavy rifle I made sure of my ugly game. I peeped over the bank. There he was within ten feet of the sight of the rifle. I was on the point of firing at his eye, when I observed that he was attended by a bird called a ziczac. The bird was walking up and down close to the crocodile's nose, but when it saw me it jumped up about a foot from the ground, and dashed itself against the crocodile's face two or three times. The great beast started up, and immediately spying his danger, made a jump into the air, and dashing into the water with a splash which covered me with mud, he dived into the river and disappeared.

(b) War is the condition of this world. From man to the small- 20
est insect all are at strife, and the glory of arms, which cannot be obtained without the exercise of honour, fortitude courage, obedience, modesty, and temperance, excites the brave man's patriotism, and is a chastening corrective for the rich man's pride. It is yet no security for power. Napoleon, the greatest man of whom history makes mention—Napoleon, the most wonderful commander, the most profound statesman, lost by arms Poland, Germany, Italy, Portugal,

Spain and France. Fortune, that name for the unknown combinations of infinite power, was wanting to him, and without her aid the designs of man are as bubbles on a troubled ocean.

(c) A right-minded man will shrink from seeming to be what he is not, or pretending to be richer than he really is, or assuming a style of living that his circumstances will not justify. He will have the courage to live honestly within his means, rather than live dishonestly upon the means of other people; for he who incurs debts in striving to maintain a style of living beyond his income, is in spirit as dishonest as the man who openly picks your pocket. The honourable man, on the other hand, is frugal of his means, and pays his way honestly. He does not seek to pass himself off as richer than he is, or, by running into debt, open an account with ruin. As that man is not poor whose means are small, but whose desires are controlled, so that man is rich whose means are more than sufficient for his wants.

2. Correct the errors in spelling, if any, in the following passage :—

ဤမင်းကား အလွန်ဘုန်းရှိသောယောက်ျားပေတည်း။
ငါငင်၍သူမယိန်း။ ဘူသိန်းမှ ငါပါရချေမည်တကားဟု
အယူရှိလေ၏။ ဘုရားလောင်း မဟာဇနကမင်းသည်
မှူးမတ်ပရိတ်သတ်တို့နှင့် စကားပြောဟော၍ပြီးငွေတော်
မူသောအခါမှ။ အထိုတော်အလျောက်ပြုကတော့သောသွား
ခြင်းဖြင့်။ ရွှေကူဝသို့ဝင်လာသော ချင်သေ့မင်းကဲ့သို့။
တိကြည်ရဲရင့်ခြင်းနှင့်ရန်ညီစွာ။ လျောင်းတော်ဦးမှသည်
မင်းသွီးရှိရာနန်းမဆောင်သို့ တက်ကြွတော်မူလေ၏။
ဘုရားလောင်း၏ဘုန်းအလျှင်တော်ခိုက်နှင့်သည်ဖြစ်၍။
သိဝထိဒေဝီမင်းသွီးလည်း။ ဘုရားလောင်းလာအံ့သည်ကို
သာမြှင်လင့်လျက်နေလေ၏။

3. Combine the following sentences :—

12

ထိုသင်္ခမ်း၏ခနီးမဝေးသောမြေအရပ်၌ ရေကန်သည်
နန္ဒဝန်ဥယျာဉ်၌ နတ်တို့၏ပျော်မြူးရာ ရေကန်နှင့်လည်း
တူ၏—ထိုမြေအရပ်သည် နှလုံးမွှေးလျော်ဘွယ်ရှိ၏—
၎င်းရေကန်သည် ကြမျိုး ငါးပါးတို့ဖြင့် ဖုံးလွှမ်းအပ်၏
—ထိုရေကန်၌ ကြာမျိုးငါးပါးတို့သည်ပွင့်ကုန်၏—

ထိုကြာမျိုးငါးပါးတို့သည် အဆင်းအားဖြင့်။ ကြာညို
 ကြာဖြူကြာနီဟုသုံးထွေသုံးသွယ်ခြင်း၏ — ထိုကြာမျိုး
 ငါးပါးတို့သည်ဆန်းကြယ်စွာပွင့်ကုန်၏။

4. Frame sentences to illustrate the use of the following expressions:— 12

(a) အားကြီးအန်ထောင်။

(b) ကြိုးကြားကြိုးကြား။

(c) စောင်းဆီရိပ်ခြည်။

(d) ထီးရိုးနန်းစဉ်။

5. Write an essay in Burmese on the following:—

25

Envy—

(a) A base and low feeling.

(b) Must be got rid of the moment it takes hold of us.

(c) Not only a vice in itself, but the father of other vices, particularly dishonesty.

(d) Contentment, the great foe of Envy.

BENGALI COMPOSITION.

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BABU JAJNESWAR BANERJEE.
BABU KALIPADA MUKHERJEE.
BABU RAMENDRANATH GUPTA, KAVIRATNA.
BABU JYOTISHCHANDRA CHATTERJEE.
BABU NABAKRISHNA BHATTACHARYYA.
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BABU BASANTARANJAN RAY.
BABU NABAKANTA GUHA.
BABU MANILAL GANGULI.
MRS. HEMLATA SARKAR.
MAULAVI ABDUL KARIM.
MAULAVI ABDUR RAHIM.
MAULAVI ABDUL JABBAR.
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BABU BHABASINDHU DATTA.
BABU AKSHAYCHANDRA BARAL.
BABU HEMCHANDRA RAY.
BABU DEBKUMAR RAI CHAUDHURI.
{ BABU UMAPADA RAY.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate *any two* of the following passages into Bengali :—

(a) There was once a poor man who went every day to cut wood in the forest. One day as he went along he heard a cry like a little child's; so he followed the sound till he at last looked up a high tree, and on one of the branches sat a very little girl. Its mother had fallen asleep and a vulture had taken it out of her lap and flown away with it and left it on the tree. Then the wood-cutter climbed up, took the little child down, and said to himself, "I will take the poor child home and bring it up with my son." 20

(b) The king of a country, a long way off, had three sons. He liked one as well as another, and did not know which to leave his kingdom to after his death. So when he was dying he called them all to him, and said, "Dear children, the laziest one of the three shall be king after me." "Then," said the eldest, "the kingdom is mine: for I am so lazy that when I lie down to sleep, if anything were to fall to my eyes so that I could not shut my eyes, I shall still go on sleeping." 20

(c) The second said, "Father, the kingdom belongs to me; for I am so lazy that when I sit by the fire to warm myself, I would sooner have my toes burnt than take the trouble to draw my legs back." The third said, Father, the kingdom is mine; for I am so lazy, that if I am going to be hanged, with the rope round my neck, and somebody were to put a sharp knife into my hands to cut it, I had rather be hanged than raise my hand to do it." 20

2. Fill up the ellipses in the following :—

অসময়ে বপন করিলে শস্য ভাল হয় না। ভাল ছেলেকে
না দিলে তাহার পড়ায় উৎসাহ হয় না। বিনয় মনুষ্যের
স্বরূপ। অভাবে লোকের নষ্ট হয়। ক্রোধ
মনুষ্যের প্রধান । পলাশ ফুল দেখিতে
কিন্তু না থাকিতে কেহ তাহার করে না। 8

3. Substitute a single word for *any two* of the following :—

(a) যাহার বিশেষরূপ খ্যাতি আছে।

(b) যাহার ঋণ নাই।

(c) যে বিদেশে থাকে না।

(d) যাহার মমতা নাই।

4. Correct *all* errors in the following :—

তিনি দীর্ঘকাল ব্যাধিগ্রস্ত থাকিয়া এখন নিরোগী হইয়াছেন। তিনি তাহার ছেলেটিকে পড়াইবার জন্য বিশেষ শ্রম স্বিকার করিয়াছিলেন, কিন্তু সে শ্রম ফলবতী হয় নাই। আমি কদাপিও তাহার অসাক্ষাতে নিন্দা করি নাই। তিনি কোনরূপেই ধৈর্য্য হইয়া আমার কথা শুনিলেন না। তাহার অকৃত কার্য্যের সংবাদ পাইয়া আমি বড়ই দুঃখ হইরাছি, পরীক্ষার অকৃতকার্য্য হওয়া অপেক্ষা লজ্জাস্বরূপ কথা আর কি আছে? 10

5. Write an essay on *any* of the following subjects:— 40'
- (a) Industry is the mother of good luck.
 - (b) Any story from the Ramayana or the Mahabharata, showing examples of truthfulness, fortitude and devotion.
 - (c) The Saraswati Puja.
 - (d) The Maharram.
 - (e) The Christmas.

HINDI COMPOSITION.

Paper-setters—{ BABU PURANCHAND NAHAR, M.A.
BABU RAJENDRAPRASAD, M.A.

Examiners—{ BABU SIBNARAYAN LALA.
BABU BADRINATH VERMA, M.A.
BABU BRAJAMOHAN THAKUR, B.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate any *two* of the following passages into Hindi:— 40'

A.

It was one morning, in the sultry month of April, when a human figure was seen moving in a street of Kanchanpur, a village about six miles to the north-east of the town of Vardhamana. There was no moon in the heavens, as she had already disappeared behind the trees on the western skirts of the village, but the sky was lit up with myriads of stars, which were regarded with superstitious awe by our nocturnal pedestrian, as if they were the bright eyes of men who once lived on the earth and had since passed into the realms of Indra. Perfect stillness reigned everywhere, except when it was interrupted by the barking of dogs, or the yells of the village watchmen, two or three of whom often join in a chorus and send forth those unearthly shouts which so often disturb the sleep of the peaceful inhabitants.

B.

Rama, the son of Dashratha, is the name of this illustrious hero. By respect for his father's promise unwillingly given to Kaikeyi, his treacherous step-mother, this young prince, the heir to the throne, abandoned the court, and the fair town of Ajodhya and wandered forth into exile. In the solitary forest, with Lakshmana, his brother, and his wife, the lovely young Sita, he led a contented existence, banishing all resentment from the minds of his companions, as well as from his own. The innocent guests of the wood he avoided injuring or alarming, but when the blameless anchorites implored protection against the evil Rakshasas, the enemies of gods and of men, he armed himself in their defence.

C.

"Aha, Perseus!" he cried, "So you have come back without doing what you promised to do. Your courage is not so great as you would have us believe."

"Nay, Your Majesty," answered Perseus; "I have slain Medusa, and have brought you back her head."

"That you must prove by showing us the head," said the King, with a sneer; for, of course, he did not believe Perseus.

"Since Your Majesty insists, behold the head!" Perseus cried; and drawing it from the bag at his side, he held it aloft in all its horrid beauty. The King gazed at it an instant, with the sneer still on his face, and then sat motionless—turned to stone in all his royal state.

2. Write an essay on any one of the following subjects:—

40

(a) Description of a village—the village you have visited—means of communication—description of any interesting site associated with tradition or history—its inhabitants—climate—produce.

(b) Punctuality—what it is—quite a modern virtue—punctuality in school—in business—in travelling—in social affairs—examples.

(c) An Indian Festival—description—its usefulness—individual happiness—social effect—its misuse.

3. Illustrate the use of the following phrases:—

5

(a) भरमार (b) हलचल (c) लगातार (d) ललकार

(e) तितर बितर

4. Give in your own words the significance of the following 10
proverbs:—

(a) कीड़ी पर कटक.

(b) जैसे देव वैसी पूजा.

(c) जल में रहे मगर से जैर.

(d) जिसकी लाठी उसकी भैंस.

(e) लेना एक न देना दो.

5. Fill up the blanks in the following extracts:—

5

विद्वान और राजा में बड़ा है, वह यह है कि राजा
केवल अपने में ही बरकारित होता है परंतु विद्वान
भरमें है। इस लिये उचित है कि सब लोग पूर्वक
विद्याध्ययन करें, विद्वान मनुष्य सर्वे रहते हैं और
अविद्वान लोग दुखी रहते हैं। किसी ने कहा है कि जो लोग विद्या
को नहीं प्ये सदा पाते हैं। विद्या भैसी
है कि जिनको बिना संसार में कोई भी नहीं चल सता।

ORIYA COMPOSITION.

Paper-setters—{ BABU MADHUSUDAN DAS, M.A.
BABU KASINATH DAS, M.A.

Examiner—BABU GODABARISA MISRA, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into Oriya any two of the following :—

A.

History in the remote past is quite uncertain. When Galamadhaba, the famous warrior of the times, was galloping happily on to the royal court his steed stumbled upon an iron rod and fell down on the fore legs. Galamadhaba was violently shaken in his seat, though not thrown off. He got down immediately, tied the wounded beast to the stump of a tree and began to shovel out the sand with his mighty hands. But what would be his surprise when he discovered the spire of an edifice which, from top to the bottom, could be no smaller than a hillock. Away he then went to the king's court with all the delight of a discoverer and related the story to each man he met. The king gave a patient audience and ordered a thousand men to be dispatched to reclaim the submerged shrine. The company laboured forty days and forty nights, and on the forty-first gave to the world what we now call the great shrine. In place of the sand hill stands the gigantic structure of stone, dwarfing in height many a hillock of fame. 20

B.

Europe has not seen a greater hero than Napoleon. When each of the mighty countries stood by itself Napoleon took them one after another and made them parts of his wide empire. His expedition into Russia, of course, fell short of its purpose: but that was a failure that marks the life-long success of a genius. He has fought duels in which he has been to his combatant as a hungry lion to a young hart. He has singly faced bands of armed men approaching dreadfully like death in person. But the wonder of it is that with a single glance of his eye he has vanquished them, while his sword lay peacefully in its sheath. When all Europe from the Ural to the Atlantic invited him to the field of battle he has calmly accepted the invitation and though beaten down and taken captive, has not given himself up to despair for a moment. At his name the valiant European trembled from head to foot. But the real conquest is a conquest of the heart which he seemed not to have known. 20

C.

The giant had a huge appetite and any thing that he swallowed seemed to make his stomach empty. He digested an ass, devoured a horse and then laid his enormous hand on an elephant. The pigs and calves slipped through his fingers and escaped. The men who 20

had been silently watching all this from behind the narrow windows, could not believe their eyes. They thought that they were dreaming in a stupor brought upon the land by their own sins. There could not be a moving hill or a man that could swell himself into a monster. The strange figure then moved upon what looked like a pair of legs, each stride extending over a pine's length. In half a dozen paces he cleared the street and set foot upon the altar which crumbled away in one instant. Outside the village wall was a pool of water which the giant sipped off till nothing but the blackest mud was left. He then wallowed in the mud and seemed to be delighted by the enjoyment, for such it certainly was to him.

2. Write an essay on any *one* of the following :—

40

କାଲବିବାହ; ଓଡ଼ିଶାରେ ରେଲ୍‌ପଥର ଫଳ; କବି
ମଧୁସୂଦନ; ଉତ୍କଳରେ ବର୍ଷାକାଳୀନ ଦୃଶ୍ୟ ।

Or,

A letter to your younger brother giving him instructions as to his duties when cholera breaks out in your village.

3. Illustrate in sentences of your own the use of any *six* of the following :—

9

ତୋରା; ଅମୃତା; ନିଷାପ; ହାତେମାପି ଚାଷଣେ ଚାଲିବା;
verb from ପକ୍ଷ; ଜଂଘିଆ (noun) ସେରନ୍ତା; ଅଜଗବି;
ବଳଜା; ଅସରନ୍ତ ।

4. Change the voice in the following :—

6

ସେ ଯେତେବେଳେ ପୁଲିସ୍ ହାତରେ ଧରି ପଡ଼ିଲା ସେତେବେଳକୁ ତାଙ୍କୁ କାହାରି କିଛି କ୍ଷତି ହୋଇ ନଥିଲା । ସେ ଇଣ୍ଡରକୋରେ ଦଣ୍ଡିତ ହେବାର କଥା; ସୁତରାଂ ବର୍ତ୍ତମାନ ହାତରେ ତାର ଦଣ୍ଡ ନିଷ୍ପ୍ରୟୋଜନ ।

ରାମ ରାବଣକୁ ବଧ କଲା ଉତ୍ତାରେ ସୀତାଙ୍କୁ ଅଯୋଧ୍ୟାକୁ ଅଣିଲେ, ଅଯୋଧ୍ୟାରେ ଲେକେ ତାଙ୍କର ଅଜ୍ଞାତି ରଚନା କରିବାରୁ ରାମଚନ୍ଦ୍ର ପୁଣି ତାଙ୍କୁ ନିର୍ବାସନ କଲେ ।

5. Parse the words underlined in the following :—

5

- (1) କାଲିଠାରୁ ମୋ ପେଟକୁ ମାଲୁଛି ।
- (2) ସେ ଭୟରେ ଭୟରେ ଉତ୍ତର କଲେ ।
- (3) ସେ କଥା ଶୁଣିବାକୁ ମୋର ଅବସର ନାହିଁ ।
- (4) ତାଙ୍କ ହାତରେ ଆଜି କାଲି କିଛି ନାହିଁ ।
- (5) ସେ ଆଉ କଣ ଦେବେ ?

URDU COMPOSITION.

Paper-setters— $\left\{ \begin{array}{l} \text{KHAN BAHADUR MAULAVI MUHAMMAD} \\ \text{IBRAHIM, B.A.} \\ \text{MAULAVI MUHAMMAD MUSTAPHA KHAN,} \\ \text{M.A., B.L.} \end{array} \right.$

Head Examiner—S. KHUDA BUKSH, ESQ., M.A., B.C.L.

Examiners— $\left\{ \begin{array}{l} \text{RAI BHAGABATISAHAY, BAHADUR, M.A., B.L.} \\ \text{MAULAVI A. H. HOSSAIN, B.A.} \\ \text{MAULAVI A. F. M. HOSSAIN.} \\ \text{MAULAVI ABDUL HADI.} \\ \text{MAULAVI MD. ABDUL HAMID.} \\ \text{MAULAVI A. M. MD. WAZI.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into Urdu *any two* of the following:—

-40

(a) I have not yet described to you the most singular part. About six years ago—to be exact, upon the 4th of May, 1882—an advertisement appeared in the *Times* asking for the address of Miss Mary Morston, and stating that it would be to her advantage to come forward. There was no name or address appended. I had at that time just entered the family of Mrs. Cecil Forrester in the capacity of governess. By her advice I published my address in the advertisement column. The same day there arrived through the post a small cardboard box addressed to me, which I found to contain a very large and lustrous pearl. No word of writing was enclosed. Since then, every year upon the same date there has always appeared a similar box, containing a similar pearl, without any clue as to the sender. They have been pronounced by an expert to be of a rare variety and of considerable value.

(b) At this time two travellers were moving slowly in the direction of Krishnagar. Each carried a small bag in his left hand, and in his right hand an umbrella which protected him from the rain. They had no shoes on their feet, but they had shirts on, and their *chadars* were wrapped round their heads in the shape of a *pagree*. They trudged on, one keeping before, and the other just behind. They had walked several miles and were tired; and particularly so was the one that walked behind, as could be seen by his weary gait. Night overtook them as they entered a village. "Let us stop here for to-night," said the one that walked before, to his companion. These words were spoken in a low cautious tone as if the speaker was afraid of something.

(c) Babar, the Mongol conqueror of Hindustan, was descended in the fifth generation from Timūr, and was born in 1482, in Farghana, where his father was governor. Driven from his native province by the Uzbegs of Shaybani about 1504. Babar sought his recompense in the subjection of Afghanistan. He took possession of Badakhshan in 1503, occupied Kabul in the following year, and annexed Kandhar

in 1507. For many years he meditated the invasion of India, but it was not until 1525 that he felt himself strong enough to descend at the head of his Turks upon the Panjab and occupy Lahore.

2. (a) Compose short sentences to illustrate the use of the following words :— 10

رحمت - اصل - مقام - مسئلہ - منافع - رسم - حکام
ذوق - and - حفظ - شعر

(b) Give the genders of :— 5

نظر and پرمات - درخت - تمنا - هوا

3. Rewrite the following after filling up the ellipses :— 5

سندل درخت سینکڑوں برس سرکاری
مال سمجھ ہین اب سرکار انہیں کٹواتی
سال بھر ان کی تعداد مقرر ہے *

4. Write an essay in Urdu on one of the following subjects :— 40

(a) Contentment is the true source of happiness.

(b) Slow and steady wins the race.

(c) All is not gold that glitters.

(d) Choice of companions.

ASSAMESE COMPOSITION.

Paper-setters—{ SRIJUT NABINCHANDRA BARDOLAI, B.A.
SRIJUT PADMANATH BARUYA, B.A.

Examiner—SRIJUT LAKSHMIKANTA SARMA, M.A.

Candidates are required to give their answers in their own words
as far as practicable.

The figures in the margin indicate full marks.

1. Translate into Assamese any two of the following passages :— 40

(a) A poor Negro, walking towards Deptford, saw by the roadside an old sailor of a different complexion, with but one arm and two wooden legs. The worthy African immediately took three half-pence and a farthing, his little all, from the side pocket of his tattered trousers, and forced them into the sailor's hand, while he wiped the tears from his eye with the corner of his blue-patched jacket, and then walked away quite happy.

(b) Once upon a time a great war took place between the birds and the beasts, and this war was kept up for four or five days, because both sides were strong, and neither could at once defeat the other. There was one animal that went first to one side, and then to the other. If the birds began to win, it called itself a bird. If the beasts began to win, it called itself a beast. This animal was the bat. One day, when it seemed that the beasts would win, it

went over to their side, and said, "O beasts! I am not a bird. Is there any bird that has two rows of teeth in its head as I have, and gives milk to its young?" Another day, when the beasts seemed likely to fail, the bat went over to the birds, and said, "O birds! am I not a bird? How can I be a beast? What beast can fly in the air like me?" This is also the lot of all those who are false to their friends, and get first to this side, then to that—seeking only to be on the side that wins.

(c) In the wild forests of the Deccan Ráma lived for many years. He made friends with the black forest tribes whom the Aryans called monkeys. A wicked king named Rávana took away poor Sita one day when Ráma was out hunting, and carried her off to his own country, Ceylon. But Ráma, went after him, and was helped by his dark-skinned friends who lived in the woods. Their chief was called Sugriva. He sent a large army to help Ráma, under his general Hanumán, whom to-day many Hindus worship as the great Monkey-god. Rávana was killed, and Sita came safely back with Ráma.

2. Construct simple sentences in Assamese using the following words and phrases:—

- (a) বাপতিসাহোন ; (b) জুবণি ; (c) নিবোকা ; (d) বাঁচোটোকা ;
(e) কুঁজৰ পিঠিত কিল ।

3. Correct the following:—

পিচত সি খুজ কাৰিব নোৱৰাত পাচ পড়িল । তাৰ পিছত সি আক কেই খুজ আগ বাড়িল লিখিব নহল কাৰনে ইতিয়া আপনাক এই ছিটিত লেখি জনাব পাৰা নগল । নেলেখিলে নহই যদি, তাক শুধি পিচত লেখি পাঠম ।

4. Explain in simple Assamese:—

- (a) যি কৰে পৰত, তাৰ মিলে ঘৰত ।
(b) আপদত অযুত্ত ।
(c) পেটৰ ভোকে যি কৰে, মুখৰ লাজে কি কৰে ।
(d) বাইজে নথ জোকাৰিলে নৈ বয় ।
(e) সাপে খায়, আৰু কাপে খায় ।

5. Turn the following into indirect form:—

তেওঁ গৈ সেৱা জনোৱাত শুকৰে উপদেশ দিলে, "তুমি কেতিয়াও মিছা নকৰাঁ ; কাৰো অহিতে মিছা সাক্ষী নোলাৱাঁ । তুমি অসংলোকৰ সঙ্গ নলৰাঁ ; অসতৰ লগত এখোজলৈকো নোলাৱাঁ । তুমি পৰব বস্তত মোহ নযোৱাঁ ; যি বস্তু তোমাৰ নিজা নহয়, তাক কেতিয়াও মোৰ জ্বলিবাঁ ।" তাৰ পাচত তেওঁ "প্ৰভুৰ বাক্য নিবোধ্য" বুলি বিদায় ললে ।

6. Write an Essay in Assamese on one of the following subjects:— 40

- (a) বাজতন্ত্ৰ ।
- (b) উপস্থিত মহাবল ।
- (c) ছাত্রজীবন ।
- (d) ভাষার ভাষা বৃত্তান্ত ।
- (e) কৃষি আৰু শিল্প ।

BURMESE COMPOSITION.

Paper-setters—{ W. G. WEDDERSPOON, ESQ., M.A., I.S.O.
MAUNG TIN, ESQ., M.A.

Examiners—{ MAUNG KYAW DIN, B.A.
MAUNG BA, B.A., F.C.S.

The figures in the margin indicate full marks.

1. Correct the errors in spelling, if any, in the following passage:— 10

မန္တိဒေဝီ။ သင်ကြည့်ပါလော့။ ဤတောအလုံး၌ ဆင်သံ
မြင်းသံ အစရှိသော အသံတို့သည် အုပ်အုပ်ကြက်ကြက်
ဖြစ်နေ၏။ တန်ခွံအောင်လံများတို့သည်လည်း တလျှပ်
လျှပ်လွင့်လျက်ထင်၏။ သမင်သားငါးတို့ကိုမုတ်ဆိုးတံ
ငါတို့သည် ပိုက်ကွံဖြင့်ဝန်းရန်လျက်။ တွင်းခြောက်ထုံး
အိုင်တို့၌ချပြီးလျှင်။ ရုန်းရာရာကိုရှေး၍။ ထက်စွာသော
တွပ်မဖြင့် ထိုးသတ်သိသကဲ့သို့။ ငါတို့ကိုလည်း ဤစစ်သ
ည်တို့သည် သတ်ရောင်တကား။ မင်းပိပိကိုရှုရ၍
ပြည်မှောင်ထုပ်သဖြင့်။ ဆင်းရဲစွာသောအရပ်၌နေရသော
ငါတို့ကို အဘယ်ကြောင့် သတ်ညှင်းဆဲလိုသိသနည်းဟု။
သေအံ့သောဘေးမှကြောက်သည်ဖြစ်၍ငိုကျွေး၏။

2. Combine the following sentences:—

8

မဏိမေဓလာနတ်သွီးသည် ဘုရားလောင်းကို လက်နှ
စ်ဘက်ဖြင့် ချီဆောင်၏။ ပန်းစည်းကို ပိုက်ချီသကဲ့သို့ချီ

ဆောင်၏—သက်သက်သာသာချီဆောင်၏—ချီဆောင်ပြီးလျှင် သိပ်မွေ့ထွစွာသော ရင်ဖြင့် ပိုက်၍။ ကောင်းကင် ခရီးဖြင့် ဆောင်လေ၏—ချစ်ထွစွာသော သားငယ်ကို အမိ ပြက်သကဲ့သို့ ဆောင်လေ၏—ဘုရားလောင်းသည်လည်း။ အထွန်ပင်ပန်းတော်မူသည်ဖြစ်၍ လည်းကောင်း။ အိပ်ပျော်ခြင်းသို့ရောက်လေ၏—နတ်သို့အထွေ။ သိပ်မွေ့နူးညံ့သောရင်ငွေ့ကိုထုံရသည်ဖြစ်၍လည်းကောင်း။ အိပ်ပျော်ခြင်းသို့ရောက်လေ၏။

3. Frame sentences to illustrate the use of the following expressions:— 12

- (a) အာစလျာဝ။
- (b) ကနွဲ့ကလျ။
- (c) ငယ်မွေးမြီပေါက်။
- (d) စနောင်စနင်။

4. Write an essay in Burmese on one of the following:—

35

(1) Memory—

- (a) Value of a good memory.
- (b) How to cultivate it.
- (c) Education not merely remembering.
- (d) Why is a schoolboy who thinks better off than another who only remembers.

(2) Duty—

- (a) Duty is that which is due from us to others.
- (b) Some duties are pleasant, and some are unpleasant—greater credit in performing the latter. (Give instances).
- (c) A schoolboy's chief duties: obedience to parents and teachers, hard work, truthfulness, punctuality, etc.

5. Translate into Burmese:—

35

I was in the stokehold, and this prevented my witnessing the finely-fought engagement; but I gathered the full details at first-hand. We were quietly steaming 14 knots per hour, when we were signalled for full speed ahead. The destroyer Broke leapt forward at 27 knots, and when we heard shells dropping overboard, we knew we were in an action. A naval battle gives a man in the stokehold an uncanny feeling, for he knows so little of what is happening; yet he feels so much that minutes seem like hours. A big bump announced our ramming the enemy. I sent two hands up to see what was going on, and they returned with the welcome news that we were fighting Germans, and that we were winning. It was a trying time for us in

the stokehold, but there was no croaking and no wavering. We worked on ceaselessly. Suddenly a cheer went up, and we knew we had won. I afterwards heard how the fight progressed, how our Commander outmanœuvred the Germans, and how we destroyed their ships.

ENGLISH.

ALTERNATIVE PAPER.

Examiner—A. WARREN, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

N.B.—*Great importance will be attached to clearness and accuracy of expression and style. Answers will be valued according to quality rather than quantity. Neatness of style and originality of composition are desired.*

1. Write an Essay on one of the following subjects:— 25

(a) The power and responsibilities of the Press.

(b) Your favourite leisure reading.

2. Write a letter to a friend describing how you would spend a thousand rupees, if the sum were placed at your disposal by a kind friend. 15

3. Give in simple English the substance of one of the following passages:— 20

(a) From the littleness and meanness and niggardliness forced upon us by circumstances, what a relief to turn aside to the exceeding plenty of Nature! There are no bounds to it, there is no comparison to parallel it, so great is this generosity. No physical reason exists why every human being should not have sufficient, at least, of necessities. For any human being to starve, or even to be in trouble about the procuring of simple food, appears indeed a strange and unaccountable thing, quite upside down and contrary to sense, if you do but consider a moment the enormous profusion the earth throws at our feet. In the slow process of time, as the human heart grows larger, such provision, I sincerely trust, will be made that no one need ever feel anxiety about mere subsistence.

(b) Among all the sorrows of this war there is one joy for us in it: that it has made us brothers with the French as no two nations have ever been brothers before. There has come to us, after ages of conflict, a kind of millenium of friendship; and in that we feel there is a hope for the world that outweighs all our fears, even at the height of the world-wide calamity. There is no people that can praise as the French can; for they enjoy praising others as much as some nations enjoy praising themselves, and they lose all the reserve of egotism in the pleasure of praising well. But they have praised the English army so generously because there was a great kindness behind their praise, because they, like us, feel that this war means a new brotherhood stronger than all the hatreds it may provoke—a brotherhood not only of war but of the peace that is to come after it.

4. Give in your own words the substance of the following:—

20

Our life is but an idle play
 And various as the wind :
 We laugh and sport our hour away,
 Nor think of woe behind.
 See the fair cheek of beauty fade,
 Frail glory of an hour ;
 And blooming youth with sickening head
 Droops as the dying flower.
 Our pleasures like the morning sun
 Diffuse a flattering light ;
 But gloomy clouds obscure their noon,
 And soon they sink in night.

5. (a) Find suitable similes for any *three* of the following:—

10

War, thunder, anger, pity.

(b) Construct short sentences personifying *peace and justice*.

6. Name the metre in which the following stanza is written, and scan the lines:—

10

Other Romans shall arise,
 Heedless of a soldier's name ;
 Sounds, not arms, shall win the prize,
 Harmony the path to fame.

HISTORY.

Paper-setters— { BABU ADHARCHANDRA MUKHERJEE, M.A.,
B.L.
BABU BEPINBIHARI SEN, M.A.

Head Examiner—BABU BEPINBIHARI SEN, M.A.

Examiners— { BABU NEMAICHAND SIL, M.A.
BABU RAKHALDAS BASU, M.A..
BABU HARIPADA PANDEY, M.A.
BABU ATINDRANATH MUKERJEE, M.A.
BABU NRIPENDRAKUMAR DATTA, M.A.
BABU UPENDRANATH RAY, M.A.
BABU NARENDRANATH MUKERJEE, M.A.
MR. S. K. RAY, M.A.
BABU BAIDYANATHNARAYAN SINHA, M.A., M.L.
BABU NILRATAN MUKERJEE, M.A.
MR. ARUN SEN, B.A. (*Cantab*).
BABU KISORIMOHAN GUPTA, M.A.
BABU SATISCHANDRA CHAKRABARTI, M.A.
BABU SATISCHANDRA BASU, M.A.
BABU NIRMALKUMAR GUPTA, M.A.
BABU RADHAKRISHNA JHA, M.A.
BABU JIBANCHANDRA TALUKDAR, M.A.
BABU PARESCHANDRA MUKERJEE, M.A.
BABU HEMCHANDRA RAY, M.A.
BABU BIDHUBHUSHAN SENGUPTA, M.A.
BABU PRAMATHANATH BANERJEE, M.A.
KHAN BAHADUR MAULVI AHSAN ULLAH, M.A.
BABU ATALBIHARI BHATTACHARYYA, M.A.
BABU KALIPADA MITRA, M.A.
BABU JATINDRAKUMAR CHAUDHURI, M.A.

To look over answer-papers written in Vernacular.

BENGALI.

Examiners.— { BABU KALIPRASANNA BANERJEE, B.A.
BABU MANMATHAMOHAN BASU, M.A.
BABU KALIPRASANNA DASGUPTA.
BABU BENAYKUMAR CHAUDHURI.

ASSAMESE.

BABU NABINCHANDRA BARDOLAI, B.L.

BURMESE.

MR. G. J. MUNRO.

URIYA.	
Examiners— contd.	BABU NILKANTA DAS, M.A.
	HINDI.
	BABU RADHAKRISHNA JHA, M.A.
	URDU.
	MAULVI WAHID HOSSAIN, B.L.

N.B.—Only two questions are to be attempted in each group.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

GROUP A.

1. Give some account of the social and political organisation of the Hindus in the Epic Age. What changes do you notice in the character of Hindu society and government from the Vedic Age to that of the Epics? 12
2. Give a short history of the Kushan Empire. 12
3. When did Hiuen Tsang visit India? What light does his account of India throw on the religious and political condition of the country in the seventh century A.D.? 12

GROUP B.

4. Give a brief history of the Bahmini Kingdom. When and how were the several offshoots of this Kingdom annexed to the Mogul Empire? 12
5. Briefly describe the measures by which Akbar sought to realise his ideal of an united India. Show how the policy of Aurangzeb towards the Rajput princes and his Hindu subjects proved to be the cause of the decay of the Mogul Empire. Compare this policy with that of Akbar. 12
6. What was the Maharatta Confederacy? Sketch the progress of the Maharatta power under the first three Peswahs, and indicate the policy adopted by them in overthrowing the Mogul Empire. What led to the eventual fall of the Maharatta power? 12

GROUP C.

7. Sketch the career and policy of Dupleix in founding a French empire in India. To what do you ascribe his failure? 12
8. Give a short history of the Mysore Wars during the administrations of Lord Cornwallis and Lord Wellesley. 12
9. What measures for the removal of social abuses and for the intellectual and moral progress of the people of India were passed by successive Governors General from the accession of Lord Hastings to the outbreak of the Mutiny? 12

GROUP D.

10. Indicate the extent to which the British Government has adhered to a policy of conservation in India. 14
11. Describe the various methods adopted by Government to promote agriculture in British India and to help the agricultural classes. 14
12. Estimate, in the form of an essay, the benefits of British rule in India. 14

GEOGRAPHY.

Paper-setters— { BABU RAMENDRASUNDAR TRIVEDI, M.A.
BABU BIRAJMOHAN MAJUMDAR, M.A., B.L.

Head Examiner—BABU BIRAJMOHAN MAJUMDAR, M.A., B.L.

Examiners— { MR. A. MERCER. M.Sc.
BABU HEMCHANDRA SANYAL.
BABU JITENDRANATH SEN, M.A.
BABU SURENDRANATH CHATTERJEE, M.A.
BABU SUSILKUMAR ACHARYYA, M.Sc.
BABU SISIRKUMAR MITRA, M.Sc.
BABU PHANINDRANATH DAS.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. (1) Explain why the Polar regions do not receive so much heat from the sun as the regions near the equator. 10

(2) When are shadows shortest at noon at Calcutta? When are they longest? Give reasons.

2. What do you mean by the antipodes of a place?

The latitude of Calcutta is $22^{\circ} 35' N.$ and the longitude is $88^{\circ} 25'$ E. Find the latitude and longitude of its antipodes. 10

If it is noon in London, what o'clock will it be at Petrograd, $30^{\circ} 19' E.$ and at New Orleans, $90^{\circ} W.$ 10

3. Explain the terms Selvas, Geysers, Steppes, Snowline. 10
Explain the formation of glaciers.

Or,

Explain how land breezes and sea breezes are produced.

Explain the formation of rain.

4. Draw a map of Africa and show on it the principal lakes and the rivers with which they are connected, Abyssinia, Morocco, Natal, Mozambique Channel, and the most prominent Capes. 10

5. Where are the following rivers and into what seas do they fall?—Amu, Yangtse, Kiang, Tigris, Rhine, Po, Danube, Mackenzie, Rio Grande del Norte, Liffey, Tyne. 10

6. Draw an outline map of the great lakes which drain into the river St. Lawrence. 10

Give a short account of the Alpine lakes.

Or,

Name the Republics that constitute Central America.

Give a short account of the Panama Canal.

7. Give a brief account of the different races, languages and religions of India. 10

Or,

Give a short description of the Himalayan region with special reference to its principal ranges and peaks, and the principal rivers that have their sources in this region.

8. Where are the following, and what do you know of them: Katmandu, Cherrapunji, Dehra Dun, Amritsar, Thaneswar, Ajmere, Mount Abu, Chilka, Kavery falls, Chitral. 10

9. Where and what are the following: West Indies, Cape of Good Hope, Tasmania, the Hague, La Plata, Teneriffe, Alexandria, Mesopotamia, Bulgaria, Rheims. 10

10. In what respects does Australia differ from other Countries? Give a short account of the Great Barrier Reef and the Dividing Range. 10

MECHANICS.

Paper-setters— $\left\{ \begin{array}{l} \text{HON. JUSTICE SIR ASUTOSH MOOKERJEE, KT.,} \\ \text{C.S.I., M.A., D.L.} \\ \text{BABU JNANCHANDRA GHOSH, M.A.} \end{array} \right.$

Examiner—ADINATH SEN, ESQ., M.A.

Candidates are permitted to attempt only eight of the following questions which are of equal value (=12½ marks).

All diagrams must be drawn neatly in pencil. In awarding marks attention will be paid to neatness and cleanliness.

Candidates are required to give their answers in their own words as far as practicable.

1. Define mass, weight, acceleration, and force.
2. State and explain the proposition known as the Parallelogram of Velocities.
3. A particle is moving with a velocity of 100 feet per second; a uniform acceleration then begins to act upon it. At the end of 1 minute its velocity is 220 feet per second. How far will it move in 10 minutes and what will then be its velocity?
4. State and explain Newton's Third Law of Motion, giving one example.
5. Describe Atwood's machine. How could you prove by means of it that the space described from rest by a body acted on by a uniform force varies as the square of the time?
6. A body whose mass is 3 lbs. acquires a velocity of 10 ft. per second in 5 seconds (from rest) under the action of a constant force. Find its magnitude.
7. Enumerate and prove the proposition known as the Triangle of Forces.
8. Define "Moment of a force" about a point. Prove that the moment of a couple is equal to the algebraic sum of the moments of the two forces forming the couple about any point in the plane of the forces.
9. Masses of 2, 4, 8 and 16 lbs. are placed at a series of points in a line at right angles to the edge of a table and at distances of 4, 3, 2 and 1 feet from the edge. Find the magnitude and point of application of the resultant force.
10. Explain the three classes of straight levers with examples. Find the relation between the power and the weight, where the lever, which is supposed to be without weight, is in equilibrium.
11. Describe the common balance. How would you use an incorrect balance to determine correctly the mass of a body?

H.A. and H.Sc. Examinations.

1917.

ENGLISH.

Paper-setters—{ HON'BLE DR. DEVAPRASAD SARBADHIKARI,
C.I.E., M.A., LL.D.
J. N. DAS GUPTA, ESQ., B.A. (*Oxon*).
J. R. BANERJEE, ESQ., M.A., B.L.
J. W. HOLME, ESQ., M.A.

FIRST PAPER.

Head Examiner—MR. J. R. BANERJEE, M.A., B.L.

Examiners—{ BABU PADMINIBHUSAN RUDRA, M.A.
BABU RAMAPADA MAJUMDAR, M.A.
BABU ISHANCHANDRA GHOSH, M.A.
BABU SURESCHANDRA SEN GUPTA, M.A.
BABU SUNTIKUMAR CHATTERJEE, M.A.
BABU PRIYANATH CHATTERJEE, M.A.
BABU SRIKUMAR BANERJEE, M.A.
BABU GIRINDRACHANDRA BANERJEE, M.A.,
B.T.
BABU MATILAL CHATTERJEE, M.A.
BABU SATYENDRANATH BOSE, M.A.
BABU SYAMACHARAN MUKERJEE, M.A.
BABU NRIPENDRACHANDRA BANERJEE, M.A.
BABU SUSILKUMAR DE, M.A.
MR. C. H. LINTON, M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. 'Avenge, O Lord, thy slaughtered saints.' Give the substance 12
of the sonnet which begins thus, and explain the circumstances which
led to its composition.

Or,

How does Milton comfort himself for his loss of eye-sight? What
classical examples does he cite in the sonnet headed 'When the as-
sault was intended to the city'?

2. Write explanatory notes on the following, indicating the context in each case:— 16

- (a) All is, as ever in my great Task-master's eye.
- (b) The better part with Mary and with Ruth
Chosen thou hast.
- (c) I did but prompt the age to quit their clogs
By the known rules of ancient liberty
- (d) New 'Presbyter' is but old 'Priest' writ large.

3. (a) What do we learn from the fourth Book of the *Task* regarding the delights and occupations of Cowper, and the general tenour of his life? 8

(b) Explain:— 8

What is it but a map of busy life,
Its fluctuations, and its vast concerns?

What are the 'fluctuations' and 'concerns' that Cowper specially speaks of?

Or,

Explain—'Ruler of the inverted year.' Give the substance of Cowper's address to Winter.

4. Explain the following, indicating the context, and adding notes, where necessary:— 16

- (a) Where penury is felt the thought is chained,
And sweet colloquial pleasures are but few.
- (b) The course of human things from good to ill,
From ill to worse, is fatal, never fails.
- (c) Man in society is like a flower
Blown in its native bed.
- (d) My very dreams were rural, rural too
The firstborn efforts of my youthful muse,
Sportive, and jingling her poetic bells.

5. What led Coleridge to write the *Ancient Mariner*? 6

6. Write a short essay on the thought contained in the following:— 10

He prayeth best, who loveth best
All things both great and small.

Or,

Oh Sleep! it is a gentle thing,
Beloved from pole to pole!
To Mary queen the praise be given!
She sent the gentle sleep from Heaven,
That slid into my soul.

7. 'The world is too much with us.' Briefly state the substance of the sonnet which is thus introduced, and indicate the lesson which this sonnet is intended to teach. 12

8. Write explanatory notes on any *three* of the following, indicating in each case the connection in which the passage occurs:— 12

- (a) The visible scene
Would enter unawares into his mind
With all its solemn imagery.
- (b) Myself will to my darling be
Both law and impulse.
- (c) And 'tis my faith that every flower
Enjoys the air it breathes.

- (d) Men are we, and must grieve when even the shade
Of that which once was great is passed away.
(e) To be a Prodigal's favorite—then, worse truth,
A miser's Pensioner—behold our lot!
(f) A perfect Woman, nobly planned,
To warn, to comfort, and command.

ENGLISH.

SECOND PAPER.

Head Examiner—MR. J. R. BANERJEE, M.A., B.L.

<i>Examiners</i> —	{	BABU PRAPHULLAKUMAR GUHA, M.A.
		BABU BASANTAKUMAR RAY, M.A.
		BABU HIRANKUMAR BANERJEE, M.A.
		BABU KIRANCHANDRA BOSE, M.A.
		BABU MANIRHUSAN SEN, M.A.
		BABU GIRIJASANKAR BHATTACHARYYA, M.A.
		BABU SURENDRACHANDRA GUPTA, M.A.
		BABU BARADAKANTA CHATTERJEE, M.A.
		BABU HARANCHANDRA CHAKLADAR, M.A.
		BABU NARENDRANATH CHATTERJEE, M.A.
		BABU BIPINBIHARI GUPTA, M.A.
		BABU PULINBIHARI KAR, M.A.
		BABU BHUPENDRACHANDRA BOSE, M.A.
		BABU KIRANKUMAR BOSE, M.A.
		BABU BASANTAKUMAR RAY, M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Give an account of Gerard's being thrown into prison and his rescue from it. 15

Or,

Give a sketch of the character of Catherine. 15

2. Explain fully any three of the following passages:— 15

(a) "Hippocrates and Galen!" he cried, "'tis a *soupe au vin*—the restorative of restoratives. Blessed be the nation that invented it, and the woman that made it, and the young man who brings it to fainting folk. . . . This corroborative, young Sir, was unknown to the ancients."

(b) There is an art can speak without words; unfettered by the penman's limits, it can steal through the eye into the heart and brain, alike of the learned and unlearned; and it can cross a frontier or a sea, yet lose nothing. It is at the mercy of no translator; for it writes a universal language.

(c) "Kate," said Eli, "fear not; Richard and I will give him glamour for glamour. We will write him a letter, and send it to Rome by a sure hand with money, and bid him home on the instant."

(d) This bitter-sweet stayed by him. Seeing which she built on it as cards are built. . . . And so with the patience of her sex she coaxed his body out of Death's grasp: and finally, Nature being patted on the back, instead of kicked under the bed, set Jorian Ketel on his legs again.

3. Characterise, after Stopford Brooke, Milton's Prose Works. 15

4. What are the defects of the style of *Paradise Lost* and how are they redeemed? 8

5. Explain fully *any three* of the following passages:— 12

(a) This is the Elizabethan weakness and strength, the mixture of gold and clay, the want of that art-sensitiveness which feels the absurd.

(b) It goes with the Miltonic feeling of the necessity of the mere mob of men being governed by the best.

(c) Neither do I think to covenant with any knowing reader that for some few years yet I may go on trust with him towards the payment of what I am now indebted.

(d) It is this humanity that makes him the most interesting character in *Paradise Lost* to those who do not read the poem to the close.

(e) But the truth is, Milton not having formed a clear idea of the temptation, tried to get one by repeating himself, and the Nemesis of unintelligent repetition fell upon him.

6. (a) Give Addison's observations on *either* bodily labour *or* witchcraft. 13

(b) "The *Spectator* has a permanent value as a human document." 13
Justify this remark.

7. Amplify the thoughts contained in *three* of the following passages:— 9

(a) A general trader of good sense is pleasanter company than a general scholar.

(b) Thus, he endures the torment of poverty, to avoid the name of being less rich.

(c) For want of this *standing dress*, a man who takes a journey into the country is as much surprised, as one who walks in a gallery of old family pictures.

(d) Take a brute out of his instinct, and you find him wholly deprived of understanding.

(e) If I was a lord or a bishop, and kept a barge, I would not put a fellow in my livery that had not a wooden leg.

ENGLISH.

THIRD PAPER.

Head Examiner—MR. J. R. BANERJEA, M.A., B.L.

<i>Examiners</i> —	{	BABU GOPALCHANDRA MAITRA, M.A.
		REV. J. N. RAWSON, M.A.
		BABU NIRANJAN NIYOGY, M.A.
		MISS VICTORIA MOOKERJEE, M.A.
		BABU ABINASHCHANDRA BASU, M.A.
		MR. P. C. WHITLOCK, B.A.
		BABU NARENDRANATH CHAKRABARTI, M.A.
		BABU ABINASHCHANDRA MAJUMDAR, M.A.
		DR. S. K. GUPTA, M.A., B.LITT., PH.D.
		BABU ASUTOSH CHATTERJEE, M.A.
		BABU CHARUCHANDRA BISWAS, M.A., B.L.
		MR. G. H. MATTHEWS, M.A.
		BABU SURESHCHANDRA RAY, M.A.
		MR. P. C. RAYCHAUDHURI, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Write an essay on one of the following subjects:— 30
 - (a) The dignity of labour.
 - (b) Novels as a source of instruction and amusement.
 - (c) The child is father of the man.
 - (d) Nothing useless is, or low ;
Each thing in its place is best ;
And what seems but idle show
Strengthens and supports the rest.
2. Write a short essay of about twelve lines, by developing the thought contained in the following lines:— 10

Strong is that man, he only strong,
To whose well-order'd will belong,
For service and delight,
All powers that, in the face of Wrong,
Establish Right.
3. Give in simple English the substance of the following passage:— 20

In some charming lines of Béranger, one may fancy described the career, the sufferings, the genius, the gentle nature of Goldsmith, and the esteem in which we hold him. Who, of the millions whom he has amused, does not love him? To be the most beloved of English writers, what a title that is for a man! A wild youth, wayward but full of tenderness and affection, quits the country village where his boyhood has been passed in happy musing, in fond longing to see the great world out of doors, and achieve name and for-

tune; and after years of dire struggle, and neglect and poverty, his heart turning back as fondly to his native place as it had longed eagerly for change when sheltered there, he writes a book and a poem, full of the recollections and feelings of home—he paints the friends and scenes of his youth, and peoples Auburn and Wakefield with remembrances of Lissoy. Wander he must, but he carries away a home-relic with him, and dies with it on his breast. His nature is truant; in repose it longs for change: as on the journey it looks back for friends and quiet. He passes to-day in building an air-castle for to-morrow, or in writing yesterday's elegy; and he would fly away this hour, but that a cage and necessity keep him. What is the charm of his verse, of his style, and humour? His sweet regrets, his delicate compassion, his soft smile, his tremulous sympathy, the weakness which he owns? Your love for him is half pity. You come hot and tired from the day's battle, and this sweet minstrel sings to you. Who could harm the kind vagrant harper?

4. Explain *either* of the following extracts:—

20

(a) When God at first made Man,

Having a glass of blessings standing by;
Let us (said he) pour on him all we can;
Let the world's riches, which dispersed lie,
Contract into a span.

So strength first made a way;
Then beauty flow'd, then wisdom, honour, pleasure:
When almost all was out, God made a stay,
Perceiving that alone, of all his treasure,
Rest in the bottom lay.

For if I should (said he)
Bestow this jewel also on my creature,
He would adore my gifts instead of me,
And rest in Nature, not the God of Nature;
So both should losers be.

(b) Think that the grass upon thy grave is green;
Think that thou seest thine own empty chair;
The empty garments thou wast wont to wear;
The empty room where long thy haunt hath been;
Think that the lane, the meadow, and the wood
And mountain summit feel thy foot no more,
Nor the loud thoroughfare, nor sounding shore:
All mere blank space where thou thyself hast stood.
Amid this thought-created silence say
To thy stripped soul, What am I now, and where?
Then turn and face the petty narrowing care
Which has been gnawing thee for many a day,
And it will die as dies a wailing breeze
Lost in the solemn roar of boundless seas.

5. (a) Scan the following lines and name the metre in which each line is written:— 6

(i) Slain by the bloody Piemontese, that rolled.

(ii) Softly she was going up.

(b) What do you understand by a foot, caesura, and blank verse? 6

6. Point out and explain the figures of speech used in *any four* of the following:— 8

(a) Grey hairs should be respected.

(b) Oh, the depth of the riches both of the wisdom and knowledge of God! how unsearchable are his judgments, and his ways past finding out!

(c) He shall be like a tree planted by the rivers of water.

(d) He is a citizen of no mean city.

(e) He lay all night on a sleepless pillow.

(f) Three summers I have lived there.

BENGALI COMPOSITION.

Paper-setters— { HON. JUSTICE SIR ASUTOSH MUKERJEE, KT.,
C.S.I., M.A., D.L.
RAI SAHEB DINESCHANDRA SEN, B.A.
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Head Examiner—MAHAMAHOPADHYAYA DR. SATISCHANDRA VIDYABHUSHAN, M.A., PH.D.

Examiners— { BABU PANCHANAN GHOSAL, M.A., B.L.
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BABU GURUBANDHU BHATTACHARYYA, B.T.
BABU JADUNATH MANDAL, B.L.
BABU RAJENDRANATH KANJILAL, B.L.
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Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate the following two extracts into Bengali:—

(a) No kind of indolence hurts the health more than the modern custom of lying a-bed too long in the morning. This is the general practice in great towns. The inhabitants of cities seldom rise before 20

eight or nine o'clock ; but the morning is undoubtedly the best time for exercise, while the stomach is empty, and the body refreshed with sleep. Besides, the morning air braces and strengthens the nerves, and in some measure answers the purpose of a cold bath. Let any one who has been accustomed to lie a-bed till eight or nine o'clock rise by six or seven, spend a couple of hours in walking, riding, or active diversion without doors, and he will find his spirits cheerful and serene, his appetite keen, and his body braced and strengthened.

(b) Joan of Arc was at this time in her twentieth year. She had been a solitary girl from her childhood ; she had often tended sheep and cattle for whole days where no human figure was seen or human voice heard ; and she had often knelt, for hours together, in the empty village church, looking up at the altar and at the dim lamp burning before it, until she fancied that she saw shadowy figures standing there, and even that she heard them speak to her. The people in that part of the country were very ignorant and superstitious, and they had many tales to tell about what they had dreamed and what they saw among the lonely hills near the village.

2. Amplify one of the following extracts in simple Bengali, so as to bring out the sense clearly :—

(a) যে বায়ু মধুকণা বহন করে না, তাহা আমরা আশ্রয় করিব না ; যে নদী মধুমতী নহে, তাহার আমরা সেবা করিব না ; যে লতা মধুময় কুসুমের কুসুমিতা নহে, তাহার প্রতি আমরা চাহিব না। এই ভাবে যদি আমরা চলিতে পারি বিশ্বব্রহ্মাণ্ড আমাদের অহুকুল হইবে, সহায় হইবে। নিঃসঙ্গ ভাবে আমরা জীবিত হইতে পারিব। এবং ভাগীরথীর প্রবাহের স্রাব, অবাধ গতিতে, উন্নতির অমৃতময় পারাবারে মিশিয়া যাইতে পারিব।

(b) শরীর সঞ্চালন না করিলে পীড়িত হইয়া ক্লেশ ভোগ করিতে হয়। বাহ্যিক একরূপ ব্যবসায় অবলম্বন করিয়াছেন যে তাহাতে অঙ্গ-সঞ্চালনের আবশ্যকতা নাই, সুপ্তিতে চিকিৎসকেরা তাহাদিগকে ব্যায়াম অথবা অন্তর্বিধ অঙ্গ-চালনা করিতে পরামর্শ দিয়া থাকেন। শরীরের স্রাব মনেরও চালনা করা আবশ্যক ; নতুবা মনোবৃত্তি সমুদয় ক্রমে ক্রমে নিস্তেজ হইয়া থাকে ; সুতরাং তেজস্বিনী-মনোবৃত্তি-পরিচালনা দ্বারা যে প্রকার স্রবের উৎপত্তি হয়, তাহাতে বঞ্চিত হইতে হয়। আমাদের প্রত্যেক অঙ্গ ও প্রত্যেক মনোবৃত্তি সুখ-সলিলের এক একটা পবিত্র প্রস্রবণ স্বরূপ। তাহাদিগকে যথাবিধানে চালনা করিয়া, যত সতেজ করা যায়, ততই প্রবল সুখ-ধারা উৎপাদিত হইতে থাকে। অতএব পরিশ্রম যে আবশ্যক ও বিধেয়, তাহা আমাদের প্রকৃতি-পটে সুস্পষ্ট লিখিত রহিয়াছে।

3. Write sentences illustrating the difference in meaning, if any, between the expressions in four of the groups below :—

নব and নব্য ; দেবতা and দৈবত ; মুখ and মুখ্য ; সন্নিবি and সান্নিধ্য ; প্রসাদ and প্রসাদ্য ; বিত্ত and বৃত্ত।

4. Write an essay on *one* of the following subjects :—

40

- (a) Companionship of good books.
- (b) Earnest and patient toil brings its own reward.
- (c) Condition of Bengal during rains.
- (d) Duties of subjects to their sovereign.

HINDI COMPOSITION.

Paper-setters— { BABU SOMNATH JHARKHANDI, B.A.
BABU RADHAKRISHNA JHA.

Examiner—BABU PURANCHAND NAHAR, M.A., B.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate *any two* of the following passages into correct Hindi :— 40

A.

In this sequestered vale, blessed with all the spontaneous productions of Nature, the honeyed blossom, the refreshing breeze, the *gliding brook*, and golden fruitage, the simple inhabitants seemed happy in themselves, in each other; they desired no greater pleasure, for they knew of none greater; ambition, pride, and envy were vices unknown among them; and from this peculiar simplicity of its possessors the country was called the 'Valley of Ignorance.'

At length, however, an unhappy youth, more aspiring than the rest, undertook to climb the mountain's side, and examine the summits which were hitherto deemed inaccessible. The inhabitants from below gazed with wonder at his intrepidity; some applauded his courage, others censured his folly: still, however, he proceeded towards the place where the earth and the heavens seemed to unite, and at length arrived at the wished-for height with extreme labour and assiduity.

B.

A.—Heavens! how can I have deserved all this? How express my happiness, my gratitude? A moment like this overpays an age of apprehension.

B.—Well, now I see content in every face.

C.—Henceforth, nephew, learn to respect yourself. He who seeks only for applause from without, has all his happiness in another's keeping.

A.—Yes, sir, I now too plainly perceive my errors; my vanity to please all by fearing to offend any; my meanness in approving folly lest fools should disapprove. Henceforth it shall be my study to reserve my pity for real distress; my friendship for true merit.

C.

On the 22nd of September Lin-Darin insisted on entertaining me at a Chinese dinner. Well-meant as the invitation no doubt was, I confess that I had faced the entertainment with mixed feelings. My

Kashgar experiences had shown me the ordeal which such a feast represents to an average European. However, things passed better than I had ventured to hope. The dinner consisted of only sixteen courses, and was duly absorbed in three hours. It would be unfair to discuss the strange mixture of the menu, especially as I felt quite incompetent to analyse most of the dishes, or the arrangements of the table.

2. Rewrite in idiomatic Hindi after correcting mistakes if any :— 5

मैं सामान्य पूर्वक निवेदन करता हूँ कि आप सोहन की पेशता पर विश्वास करें क्योंकि वह अब योग्यता को प्राप्त हो गया है। मैंने उसको पेर से घिर तक देखा है। पण्डित जी का कृपा उस सम्बन्ध का कारण हुई थी ॥

3. Explain the meaning of the following idioms :—

- (a) रेवड़ी के लिये मसजिद ढहाना ।
- (b) चलते धुरे मूड़ना ।
- (c) चलते चोर कोतवाल को डाँटे ।
- (d) आँख के अन्धे नाम नैनसुख ।
- (e) आठ वार और नो त्योहार ।

4. Write an essay on *any one* of the following :—

40

- (a) A Hindu Festival.
- (b) लक्ष्मण as an ideal brother as compared with विभीषण .
- (c) Rome was not built in a day.

5. Explain in idiomatic Hindi *any two* of the following :—

10

- (a) पत्नी पुष्पो रहित विठपी विश्व होवे न कोई,
कैसी ही हो सरस सरिता वारिशून्या न होवे,
कधो, सीपी सदृश न कभी भाग फूटे किसी का,
मोती ऐसा रत्न अपना आह ! कोई न खोवे ॥
- (b) रसमय वचनों से नाथ जो सर्वश ही,
सम सदन बहाता स्वर्ग मन्दाकिनी या ।
श्रुतिपुट टपकाता बूँद जो या सुधा की,
वह नव-खनि न्यारी मञ्जुता की कहाँ है ॥
- (c) स्वकुलजलज का है जो समुद्रफुल्लकारी,
सम परम-निराशा यामिनौ का विनाशी ।
ब्रजजन विहगों के दुःख का मोह दाता
वह दिनकर शोभी रामचाता कहाँ है ॥

URDU COMPOSITION.

Paper-setters — { MAULVI MUHAMMAD MUSTAPHA KHAN, M.A.,
B.L.
MAULVI MUHAMMAD YUSUF, M.A.

Examiners — { MAULVI MD. YASIN.
MAULVI MD. ABDUL WALI.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate into Urdu *any two* of the following passages :— 20

(a) By this discourse, Ali Baba perceived that Cassim and his wife, through his own wife's folly, knew what they had so much reason to keep secret; but what was done could not be recalled; therefore, without showing the least surprise or trouble, he confessed all, and told his brother by what chance he had discovered this retreat of the thieves, and in what place it was; and offered him part of his treasure to keep the secret. 'I expect as much,' replied Cassim haughtily, 'but I will know exactly where this treasure is, and the signs and tokens how I may go to it myself when I have a mind; otherwise I will go and inform against you, and then you will not only get no more, but will lose all you have got, and I shall have my share for my information.' Ali Baba, more out of this natural good temper than frightened by the insulting menaces of a barbarous brother, told him all he desired, and even the very words he was to make use of to go into the cave and to come out again.

(b) An Afghan officer named Hasan, and surnamed Gangu Bahmani, established during the reign of Muhammad bin Tughlak an extensive kingdom with its capital first at Gulbarga in the south-west of the territory now constituting the Nizam's dominions, and afterwards at Bidar, sixty miles distant. The dynasty became known as the Bahmani, from the surname of its founder. For more than a century the Bahmani kingdom stretched right across India from sea to sea, including a large part of what is now the Bombay Presidency, as well as the Nizam's dominions, and the Northern Circars of the Madras Presidency. The kings were mostly engaged in war with the powerful Hindu state of Vijayanagar on the south, which then dominated the whole of the Tamil territory. After 1482 the kingdom was split up, and the later Bahmani kings had merely nominal rank. Another Turkish officer set up a principality close to the capital, which is known to history as the kingdom of Bidar, and lasted for more than a century. The rulers of this principality are called the Barid Shahis. 20

(c) After the mutiny, the Muhammadans all over Northern India, particularly those of noble families, were in a very backward and depressed condition. This was well known to Syed Ahmad, and long and anxiously did he ponder over it. He came to the conclusion that ignorance was the great cause of the unfortunate state of his co-religionists. He saw that they knew nothing of modern science, modern arts, and modern literature. He then set himself to the task of imparting knowledge to them. He tried to raise funds in every

part of the country to found a Muhammadan college, which should be like an English public school, but he was bitterly opposed by the maulavis and priests of his own faith. They thought that all the education necessary for boys was the study of religion and the logic and philosophy of the Middle Ages as contained in the Arabic language. Modern science, of which they know nothing, they hated, and were very much against the study of the English language. Some of them threatened to take the life of the reformer. But he persevered. He knew that he was right and they were wrong, and in the end he triumphed.

2. Paraphrase in simple Urdu prose:—

6

کی زیب بدن سب نے ہے پوشاک کتان کی
اور برف میں دوبی ہوئی کشور کی ہوا ہے
دکار ہے یان معرکے میں جوش و خفقان
اور دوش پہ یاروں کے وہی کہنہ روا ہے
دریائے پُر آشوب ہے اک راہ میں حائل
اور بیٹھہ کے گہوڑے نار پہ یان قصد شذا ہے
ملتی نہیں اک بوند بھی پانی کی جہاں مفت
وان قافلہ سب گہر سے تہیدست چلا ہے
ہاں نکلے ہیں سودے کو درم لیکے پُرانے
اور سگہ روان شہر میں مدت سے نیا ہے
فریاد ہے اے کشتی اُمت کے نگہبان
بیرا یہ تباہی کے قریب آن لگا ہے

3. Write sentences illustrating the use of the following phrases:—

6

خالہ جی کا گہر - جنگل میں منگل - چار ابرو کا صفایا -
چت منگنی پت بیاہ - تہالی پر کے بیگی - دور کے دھول

4. Write a letter in Urdu to a younger brother offering advice relating to some dispute among the members of the family.

8

5. Write an essay in Urdu on one of the following subjects:—

40

(a) A Court of Justice.—Situation of the building. The court rooms. The offices for the clerks. The bar library. The police and the peons. The trial of a case.

(b) The Post Office.—The situation of the building. The hours of business. The different kinds of business transacted—with special reference to the Insurance and Savings Bank Departments.

(c) Make hay while the sun shines.

(d) A football match.

ORIYA COMPOSITION.

Paper-setters—{ BABU MADHUSUDAN DAS, B.A.
BABU BRAJANANDAN DAS, B.A.

Examiner—BABU DASARATHI PANIGRAHI, B.A., B.T.

Candidates are required to give their answers in their own words as far as practicable.

1. Translate into Oriya any two of the following passages:—

(a) Napoleon knew what to do and he flew to his mark. He would shorten a straight line to come at his object. Horrible anecdotes may, no doubt, be collected from his history of the price at which he bought his successes. But he must not therefore be set down as cruel, but only as one who knew no impediment to his will; not bloodthirsty, not cruel—but woe to what thing or person stood in his way! Not bloodthirsty, but not sparing of blood, and pitiless.

(b) The sun rides in a chariot provided with a single wheel, and drawn by seven horses, carrying in his two hands the two celestial lotus flowers, the emblems of light and animation; and on his right-hand side stands his attendant Kundi, holding in his hands a pen and inkstand, symbolizing the computation of the age of the universe by the process of the suns, and recording of the merits and demerits of the beings dwelling therein, in the register of the heavens. On his left, stands his porter Pinjala, mace in hand, the insignia of his master's divine sovereignty; and on his two sides are stationed the two celestial damsels wafting *chāmars* unto him, ever proceeding on his luminous, infinite, and ethereal journey with his shadow-queen Nisprobha by his side.

(c) The object of a society is to bring about the moral and material improvement of the members by every means. Through the co-operative movement a vast organization is being built up by and through the people themselves for the benefit of the humblest and the poorest. But for nothing are the possibilities greater than for the spread of education. The whole of the co-operative organization is ready for the spread of education, and every one connected with the movement should be only too anxious to use it to its fullest capacity for that purpose. But it must be borne in mind from the start that the object of the movement is to teach the people to help themselves.

2.

Either,

Rewrite the following in simple and idiomatic language:—

ନିରାଶାର ପୃଥ୍ବୀ ବାସୀଙ୍କରେ ଶୁଣାନମୟ । ଯେଉଁମାନଙ୍କର ଆଶା-
ଭରସା ଶେଷ ପାଇଁଥିବ ସେମାନଙ୍କୁ ପୃଥ୍ବୀ ଶୁଣାନରୂପରେ ପ୍ରଜ୍ଞାସମାନ
ହେଲା ଏବଂ ଶୀଘ୍ର ସେମାନେ ଶୁଣାନଶାୟୀ ହୋଇ ବୃକ୍ଷଶୁଣାନଙ୍କର

ଆନନ୍ଦର କାରଣ ହେଲେ । ମାତ୍ର ବୟସ-ଅନୁସାରେ ଯାହାକର ଅଣା ଫଳବଞ୍ଚା ହେଲା ଶ୍ଵଶୁରୀର ଆକାର ପୃଥକ ଧରଣରେ ସୁଦ୍ଧା ତାହା ତାଙ୍କୁ ବଡ଼ସମୟ ଜଣାଯାଇ ବଞ୍ଚାଇ ରଖିଲା । ମନ ଦେଇ ସଂସାର ଏବଂ ଅଣା ଓ ନରାଣାରେ ପଡ଼ିଥିଲେ ଏକ ବସ୍ତୁ ଖାଦ୍ୟକୁ ବହୁ ପ୍ରକାରରେ ଦେଖା ଦିଏ ।

Or,

Correct if there be any errors in the above extract.

3. (a) Frame sentences with adjectives derived from—ପ୍ରଶ୍ନ, ସୁସ୍ଥିତି, ଅଭିଧାନ, ଅବଧାନ, and nouns derived from—ପ୍ରସ୍ଥିତ, ସଂଯତ, ସ୍ଵାଧୀନ, ପ୍ରୀତି ।

(b) Turn into indirect narration :—

“ମଙ୍ଗରାଜେ ଭଗିଆକୁ କେତେ ଟଙ୍କା ଦେଲେ ମୁଁ ଜାଣେ ନାହିଁ, କେବଳ ତମସୁକ ରେଜିଷ୍ଟର କରିବା ସକାଶେ କଟକକୁ ଘେନି ଯାଇଥିବା ସମୟରେ ଶାନ୍ତିଆ ସକାଶେ ଖଣ୍ଡେ ଲୁଗା କିଣି ଦେଇଥିଲେ, ଏ କଥା ମୋତେ ଜଣା ଅଛି । ଦେଉଳି ତୋଳିବା ସକାଶେ କୋଡ଼ିଏ ଶଗଡ଼ ଅନାଜ ପଥର ମଙ୍ଗରାଜେ ମଙ୍ଗଳାଙ୍କ ନିକଟରେ ପକାଇ ଅଛନ୍ତି । ମଙ୍ଗରାଜେ ସେଦିନ ମୋତେ ଚାରି ଅଣା ପଇସା ଦେଇଥିଲେ, ଆଉ କିଛି ଦେଇ ନାହାନ୍ତି, ମୁଁ ତରରେ ମାଗେ ନାହିଁ । ମୁଁ ଆଉ କିଛି ଜାଣେ ନାହିଁ ।”

4. Write an essay on any one of the following subjects :—

- Dairy farms and their use.
- The uses of rivers in India.
- Village-life in harvest season.
- To be able to command, one must learn to obey.

ASSAMESE COMPOSITION.

Paper-setters—{ SRIJUT HEMCHANDRA GOSWAMI, B.A.
SRIJUT NABINCHANDRA BARDOIAI, B.A.

Examiner—SRIJUT SATYANATH BORA, B.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate any two of the following passages into Assamese :—

40

(a) The same feeling which prompts us to write a long letter to a distant friend than to one nearer home, animated most letter-writers in days gone by. The time a letter took to arrive at its destination, the expense, and above all, the amount people had to say, made them often, if not always, discursive and very long-winded; nor is it to be wondered at when one reflects that in those days most people, owing to the difficulties, not to say dangers, of travelling, remained at home for months at a time, and a letter received or sent was generally an event of great importance to the whole household. Of course there was plenty of time to polish and re-polish, and eventually to send off a highly-finished and thought-out epistolary document, much in the nature of a diary, recording the most minute actions of the writer's daily life, and his opinions and feelings on every subject he could think of.

(b) The British public often hear praises of our splendid Indian Civil Service men. I am glad that they are now hearing something of our Sepoys. But the most important person who constitutes the vital part of Indian Administration—the clerk—they least hear of. He sometimes comes to you in caricature, as a comic figure in stories. You read of the fearful 'Babu' in Kipling's books and many other novels. Yet it is he who makes the working of the handful of English civilians in India possible. It is he who makes up for their want of knowledge of Indian affairs and Indian languages. It is he who virtually works the whole machinery of Indian government.

(c) Then, in simplest of words, he told us what the story meant, holding us the while with eyes, and voice, and gesture. He compelled us to scorn the gay, heartless selfishness of the young fool, setting forth so jauntily from the broken home; he moved our pity and our sympathy for the young profligate, who, broken and deserted, had still pluck enough to determine to work his way back and who, in utter desperation, at last gave it up; and then he showed us the home-coming—the ragged, the heart-sick tramp, with hesitating steps, stumbling along the dusty road, and then the rush of the old father, his garments fluttering, and his voice heard in broken cries. I see and hear it all now, whenever the words are read.

2. Render into simple idiomatic Assamese, explaining the similes :—

(a) আঁক তপোধন সকলৰ যজ্ঞ আদি নিৰ্দ্ধিষিনিষে আঁক বিধি মতে
সম্পন্ন হৈ থকা দেখি আপোনাৰ ধনুৰ ডোলৰ ঘহনিৰে সাঁচ-লগা-বাহুৰে
তাক কিমানকৈ বন্ধা কৰিছে তাকো জানিব।

5

(b) পঢ়ম কুলত শেলাই লাগি থাকিলেও সি স্কুলৰ, চম্ৰও কলত 5
থকাতে সি স্কুলোভিত আৰু এই কুশাঙ্গী বদলৰ দ্বাৰায়ো মনোহাৰিণী।

3. Put the idea contained in the following passage into Assamese 8
prose, and in as forcible a style as possible:—

সি দিনা বোম্বৰ উগা চিন বিলাকে
নিজ স্বাধীনতা আনিলে মাতি,
ঐচকো ইদৰে ইচিন বিলাকে
লগালে এদিন একতাত গাতি।
তেন্তে তুচ্ছ বুলি সেভাবোঁ ই শিল
হৃদয় মাজৰ জপৰ ধম
কৰিব এদিন ভাৰত সন্তানে
পৰান প্ৰতিষ্ঠা ইবাৰ সাধন।
জন্মিব সি দিনা শতক মেটানি
তুচ্ছ পৰি থকা শিলৰ পৰা
শত গেৰিবন্তি লভিব জনম
কৰিব পোহৰ ভাৰত ধৰা।

4. Illustrate the use of the following phrase:—

1

মৰোঁ—জীওঁ—সোওঁ—আৰি।

5. Try to express the following idea in more chaste and refined 1
language:—

সিহঁতৰ মতে পুত্ৰ কন্তা ফাং, লাসবেশ বলিয়ালি আৰু আনন্দ
উৎসব মটমটনি যাথোন।

6. Write an essay on any one of the following subjects:—

40

(a) ভাৰা জাতীয় উন্নতিৰ তাপমানযন্ত্ৰ (thermometer)

(b) মৰ্তমান যুগত “প্ৰগতিবৰ” প্ৰাদুৰ্ভাব।

(c) নাইমিল কাৰো দুৰ্গতি সন্তান
চৌষষ্ঠি পন্নবন্তি বেলেগ জাত
ইহেন জাতিক হায় কোন দিনা
দিব একতায় সাদৰৰ মাত।

BURMESE COMPOSITION.

Paper-setters—{ W. G. WEDDERSPOON, Esq., M.A.
 MAUNG TIN, Esq.

Examiner—MAUNG BA MAW, B.A.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

1. Translate any two of the following into Burmese:—

40

(a) The sight of him, notwithstanding, cheered them, for he was some degrees more wretched than they. They also cheered him, as he was no longer under the dread of passing his night alone in the fields. And so, in better heart, the three plashed painfully down the never-ending lane. At last it widened, just as utter darkness set in, and they came out on a road, and there paused bewildered, for they had lost all bearings, and knew not whether to turn to the right or left.

He was about seventeen years old, and big and strong for his age. He played well at all games where pluck wasn't much wanted, and managed generally to keep up appearances where it was; and having a bluff, off-hand manner, which passed for heartiness, and considerable powers of being pleasant when he liked, went down with the school in general for a good fellow enough.

(b) The death of Nelson was felt in England as something more than a public calamity: men started at the intelligence, and turned pale, as if they had heard of the loss of a dear friend. An object of our admiration and affection, of our pride and of our hopes, was suddenly taken from us; and it seemed as if we had never till then known how deeply we loved and revered him. What the country had lost in its great naval hero—the greatest of our own and of all former times—was scarcely taken into the account of grief. So perfectly, indeed, had he performed his part, that the maritime war after the battle of Trafalgar was considered at an end; the fleets of the enemy were not merely defeated, but destroyed; new navies must be built, and a new race of seamen reared for them, before the possibility of their invading our shores could again be contemplated.
 —SOUTHEY.

(c) Of all the men that live in history, there is none, perhaps, whom most of us would so much wish to have seen as the great Julius Caesar. Tall in stature, and of commanding aspect, delicate in feature, and graceful in form, we picture him to ourselves as not less conspicuous for the beauty of his person than for the eminence of his genius. But who can rest satisfied with realizing to his imagination the mere outline of the hero's figure, if we fail to obtain a glimpse of the expression which gives to it mind and character? There was in Caesar, we are told, a charm of manner and address which captivated all beholders. Cato smiled on the man whose treasons he denounced; Brutus admired and Cicero loved him. Strange that a being whose public career was so selfish and unfeeling, should have proved himself the most merciful to his enemies, the most considerate to his friends, the most magnanimous to those who wronged him, of all his countrymen.

2. Explain the following in your own words:—

20

- (a) ကျားမိသည့်ခွေး။ လေးမိသည့်စွန်။
 (b) ခံမထိုက်မထိုက်။ မျက်နှာထားအောက်သိနှင့်။
 (c) ပြာကြည့်အသွင်။ ပန်းသစ်ပင်လည်း။ ညွှန်ရှင်
 ဝေဝေ။ ရွက်ဟောင်းကြွေ၍။
 (d) မိုးမိုးအာကာ။ မိုးဒေဝါလျှင်။ ဘယ်ညာတောင်
 မြောက်။ လေပြည်ဖောက်၍။
 (e) ဆွေကောင်းလျှင်တစ်လယ်။ မျိုးကြွယ်လျှင်တစ်
 လောင်း။
 (f) ခုတ်မှပေါ်သည်။ ဟုတ်မှကျော်သည်။

3. Write an essay in Burmese on *one* of the following:—

40

(a) How to study. General meaning—thinking. *Methods*: collection of facts—judging the worth of facts—comparison—memory. *Uses*—using of ideas—mental development—the cultured man—value of assistance in study especially to the student.

(b) War and Peace. War: breaking up of homes—dislocation of trade—loss of wealth—cost of living—miseries of the poor—horrors of war—loss of manhood—invasion. Peace: progress—spread of education—industries—trade. Contrast between peace and war in the land.

KHASI COMPOSITION.

Paper-setter—R. R. THOMAS, ESQ., M.A.

Examiners—{ REV. J. C. EVANS.
 MR. R. R. THOMAS, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Write an essay on the effects of University Education on Life. 40
Headings: The meaning and aim of University Education—how its good aim is perverted—its good effects on (a) the character of the individual in its social and intellectual aspects, (b) and on society and the country as a whole.
2. Write a dialogue between two persons, one of them a lover of the town and the other an admirer of the country. 10

3. What do you consider to be the chief difficulties in trying to learn the Khasi Language? Support your answer by illustrations. 10

4. Translate the following into Khasi:—

(a) Our clemency will be extended to all offenders, save and except those who have been, or shall be, convicted of having directly taken part in the murder of British subjects. With regard to such the demands of Justice forbid the exercise of mercy. 20

To those who have willingly given asylum to murderers, knowing them to be such, or who may have acted as leaders or instigators of revolt, their lives alone can be guaranteed; but in apportioning the penalty due to such persons, full consideration will be given to the circumstances under which they have been induced to throw off their allegiance; and large indulgence will be shown to those whose crimes may appear to have originated in too credulous acceptance of the false reports circulated by designing men.

To all others in arms against the Government we hereby promise unconditional pardon, amnesty, and oblivion of all offences against ourselves, our crown and dignity, on their return to their homes and peaceful pursuits.

When, by the blessing of Providence, internal tranquillity shall be restored, it is our earnest desire to stimulate the peaceful industry of India, to promote works of public utility and improvement, and to administer the Government for the benefit of all our subjects resident therein. In their prosperity will be our strength, in their contentment our security, and in their gratitude our best reward.

(b) Man is born an infant. The infant is a lump of selfishness; if I may say so, the infant is a compressed tabloid of selfishness. 20
The child thinks of nobody else but of itself. The child considers itself an absolute and despotic monarch of the whole world. My watch, your hat, his gharry and horse are all his. He wants them and he must have them. If you do not meet with his demands, he is offended and cries. Selfishness is the ruling principle in the child's nature. Gradually, as the child grows and goes to school, he learns to respect the rights of other children—his playmates. Experience teaches him that he cannot take away the toy of another child. This experience, I may say, is the dawn of altruism. When the child grows to be a young man or woman and marries, attains fatherhood or motherhood, his altruistic principle is developed in a higher degree. The man then learns to live for others. He learns to sacrifice his comforts, to secure the comforts of his family and children. So when we examine human life, we find that with the decadence of selfishness there is a proportionate development of the altruistic principle, till this altruistic principle attains a higher standard to be found in family life. In most cases there the development ends. In some cases it attains a higher stage—a life for the community to which he belongs. In a still smaller number of cases a still higher stage is attained when a man begins to live for his nation, for his country, and even for the human race.

ENGLISH.

ALTERNATIVE PAPER.

Paper-setters— $\left\{ \begin{array}{l} \text{T. S. STERLING, ESQ., M.A.} \\ \text{RAI LALITMOHAN CHATTERJEE, BAHADUR,} \\ \text{M.A.} \end{array} \right.$

Examiner—W. G. FRASER, ESQ.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Write an essay of three or four pages on *one* of the following 35
subjects:—

- (a) An heroic act or episode of the Great War.
- (b) Gifts and giving.
- (c) The pleasures of a literary life.

2. Write a paragraph of ten or twelve lines on *one* of the follow- 13
ing topics:—

- (a) The rainy season.
- (b) Affectation.
- (c) Friendship.

3. Give, in your own words, the *substance* of the following pas- 15
sage:—

Our discussion is confined to method as employed in the formation of the understanding, and in the constructions of science and literature. It would indeed be superfluous to attempt a proof of its importance in the business and economy of active or domestic life. From the cotter's hearth or the workshop of the artisan to the palace or the arsenal, the first merit, that which admits neither substitute nor equivalent, is, that everything be in its place. Where this charm is wanting, every other merit either loses its name, or becomes an additional ground of accusation and regret. Of one by whom it is eminently possessed, we say proverbially, he is like clock-work. The resemblance extends beyond the point of irregularity, and yet falls short of the truth. Both do, indeed, at once divide and announce the silent and otherwise indistinguishable lapse of time. But the man of methodical industry and honourable pursuit does more; he realizes its ideal divisions, and gives a character and individuality to its moments. If the idle are described as killing time, he may be justly said to call it into life and moral being, while he makes it the distinct object not only of the consciousness, but of the conscience. He organizes the hours, and gives them a soul; and that, the very essence of which is to fleet away, and evermore to have been, he takes up into his own permanence and communicates to it the imperishableness of a spiritual nature. Of the good and faithful servant, whose energies, thus directed, are thus methodized, it is less truly affirmed, that he lives in time, than that time lives in him. His days, months and years, as the stops and punctual marks in the records of duties performed, will survive the wreck of worlds, and remain extant when time itself shall be no more.

4. Amplify any *two* of the following extracts:—

14

(a) Reading maketh a full man, conference a ready man, and writing an exact man.

(b) The labour we delight in physics pain.

(c) I cannot praise a fugitive and cloistered virtue, unexercised and unbreathed, that never sallies out and seeks her adversary.

(d) I, the heir of all the ages, in the foremost files of time.

5. Explain the following passages:—

14

(a) The intelligible forms of ancient poets,

The fair humanities of old religion,

The power, the beauty, and the majesty,

That had their haunts in dale, or piny mountain,

Or forest by slow stream, or pebbly spring.

Or chasms and watery depths; all these have vanished;

They live no longer in the faith of reason.

(b) Oh you who toil and suffer

You gladly heard the call;

But those you sometimes envy

Have they not given their all?

Oh you who rule the nation,

Take now the toil-worn hand—

Brothers you are in sorrow,

In duty to your land.

Learn but this noble lesson

Ere peace returns again,

And the life-blood of Old England

Will not be shed in vain.

6. Express the meaning of the following passages without using any figure of speech:—

(a) There is a tide in the affairs of men,

Which, taken at the flood, leads on to fortune;

Omitted, all the voyage of their life

Is bound in shallows, and in miseries.

(b) Man is his own star, and the soul that can

Render an honest and a perfect man

Commands all light, all influence, all fate,

Nothing to him falls early, or too late.

Our acts our angels are, for good or ill,

Our fatal shadows that walk by us still.

SANSKRIT.

Paper-setters—{ HON. JUSTICE SIR ASUTOSH MOOKERJEE,
Kt., C.S.I., M.A., D.L.
MAHAMAHOPADHYAYA DR. SATISCHANDRA
VIDYABHUSHAN, M.A., PH.D.
BABU MURALIDHAR BANERJEE, M.A.
BABU HARICHARAN GANGULI, M.A., B.L.

FIRST PAPER.

Head Examiner—BABU MURALIDHAR BANERJEE, M.A.

Examiners—{ BABU SRISCHANDRA CHAKRABARTI, B.A.
BABU DEBENDRANATH RAY, M.A.
BABU KALIKRISHNA GOSWAMI, M.A.
BABU SURENDRANATH DASGUPTA, M.A.
BABU AKSHAYKUMAR DATTA GUPTA, M.A.
PANDIT RAJENDRANATH VIDYABHUSHAN.
BABU KUMUDBANDHAB CHATTERJEE, M.A.
PANDIT KALIKRISHNA BHATTACHARYYA.
*To look over answer-papers written in Deva-
nagri character.*
DR. PRABHODUTT SASTRI, M.A., PH.D.
*To look over answer-papers written in Uriya
character.*
BABU KASINATH DAS, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English one of the following groups of texts :— 24

A.

स वेलावप्रवृत्तयां परिखीकृतसागरासु ।

अनन्यशासनासुर्वीं शशासिकपुरीमिव ॥

तदीयमात्रान्दितमार्त्तसाधोगुहानिद्वप्रतशब्ददीर्घम् ।

रश्मिष्विवाकाय नरेन्द्रपत्नीं निवर्त्तयामास नरेन्द्रदृष्टिम् ॥

पुण्यो महाब्रह्मसमुच्चयः सन्तर्पणो नाकपदां वरेण्यः ।

जप्त्वा ललाकस्थितये स राजा यथाध्वरे दक्षिणभिप्रणीतः ॥

तिग्मांशुरश्मिच्छरितान्कूरात् प्राञ्ज प्रभाते खलिलान्ययस्यत् ।

गभस्तिधाराभिरिव द्रुतानि तेजांसि भानोर्भुवि बभूवुस्तानि ॥

B.

पुष्पापुष्पौचित्यो निरासकः निरीतयः ।

प्रमदीयाः प्रजास्तस्य हेतुस्तद्भववर्षसम् ।

पुरन्दरघ्नीः पुरस्तुत्यताकं प्रविश्य पौरैरभिनयमानः ।

सुले सुकान्तो नृसमानसारे भूयः स हनेधुरमावसद्भु ॥

अथ जगदुरनीचैराश्रितस्तस्य विप्रा-

स्तुमुलकलनिनावं तूर्यमाजगदुरन्ते ।

अभिमतफलशंसी चाव पुस्तोर बाहु-

स्तस्य चक्रवर्तः पक्षिणश्चानुकुलाः ॥

हिरण्ययोः शाललसेव जङ्गमा च्युता द्विवः आदुरिवाचिरप्रभा ।

अथाङ्ककान्तेरधिदेवताकृतिः सुता ददे तस्य सुताय मेथिलौ ॥

2. (a) Give, in English, a summary of the description of चयोध्या in Bhāṭṭikāvya, Canto I. 5

Or,

Translate the following into English :—

तामिति । गोप्ता रक्तको वृद्धिणीसहायः पत्नीद्वितीयः सन् ।
उभावपीत्यर्थः । अन्तिके न्यस्ता वलयः प्रदीपाश्च यस्यास्तां यथोक्तां
तां पूर्वोक्ताम् । निषङ्गा धेनुमन्वाह्य अनूपविश्व । क्रमेण सुप्तमनु
अनन्तरम् । संविदेश सुप्ताप । प्रातः सुप्तोत्थितामनु उदतिप्लव
रयितवान् । अत्र अनुशब्देन धेनुराजव्यापारयोः पौर्वापर्यमुच्यते ।
क्रमशब्देन धेनुव्यापाराणामेव । इत्यपोनरक्तम् । कर्मप्रवचनीययुक्त
इति द्वितीया ।

(b) Explain either चयुर्ग in व्यजेष्ट चयुर्गमरंस्त नीतो or चिबर्ग in चिबर्ग-
पारौषमसो भवक्तम् . 2

3. (a) Expound samāsas in any two of the words underlined in 4
Groups A and B of Question 1.

(b) Notice the peculiarity in the formation of the word पुष्पापुष्प-
ौचित्यः or प्रक्षुब्धस . 2

(c) Justify— 2

(i) the difference of gender in हेतुस्तद्भववर्षसम् ;

Or,

(ii) the सप्तमी in रश्मिजिवादाय, etc.

(d) Derive three of the following :— 6

पुरन्दर, हिरण्ययोः, शौचस्तिक, वृन्दिष्ट, वैयङ्ग्यीन .

4. Account for case-endings in any three underlined words of the following extracts :—

- (a) तुल्यं सत्त्वा रघुमन्वसोऽपि ।
- (b) अथावयन्नावननेकानिह ।
- (c) अथवा वेतोर्बहु जगुमिच्छन् ।
- (d) ययावनुष्ठातसुखेन मार्गं खीनेव पूर्वैव करोमहेव ।
- (e) अधिभधन्वा विचचार हावसु ।
- (f) महान् हि यत्रस्तव देवशरी ।
- (g) आख्यायकेभ्यः अतस्तुनृत्तिः ।

5. (a) Explain with two examples either विश्वव्याप or हृदयव्याप . 4

(b) Name the roots and suffixes of three of the following :— 3

- (i) जाजिहत्, (ii) ब्रजेद्, (iii) रेदिह, (iv) निराकद्, (v) बभेह,

6. Correct the errors in one of the following extracts :—

(a) विशाखायां नगर्यां नन्दोनामा कश्चित् महच्छौर्यो राजा-
भूत् । स निजभूजवलात् प्रयचीन् विजिगाय । तस्य जयपालः इत्येको
सूनुः प्राप्तः ।

(b) अपार्ह्वरान्निभये वेषूवनमध्ये सदस्याः कस्याश्चित् स्त्रियाः
स हाहाकारमभ्रावीत् मां परित्रायतु इति । ततो प्रभाते स ग्रामस्थान्
जनान्पृच्छत् किमेतन्न घने काचित् स्त्रीः विलापति ।

7. (a) Perform Sandhi in any four of the following :— 4

विधौ + उदिते, अमी + अश्वाः, धावन् + हागः, एषः + रोदिति,
अर्चिः + त्वम् .

(b) Decline any three of the following :— 6

- (i) वी in the dative (वीर्षी) .
- (ii) पुष् in the accusative (द्वितीया)
- (iii) बधि in the locative (वसन्तौ) .
- (iv) इदम् in masculine gender in the ablative (पञ्चमौ)
- (v) युष्मद् in the genitive (वष्टौ) .

8. Translate the following into Sanskrit :—

(a) Who art thou, O lady? Whose consort art thou? What 6
is thy object in coming to me at the depth of night in this secluded
room?

(b) Why art thou, O pious lady, crying at such an event? The 9
gods show pity to the helpless relatives of those that depart to the
other world. So art thou shedding tears when thou shouldst exult
in joy!

(c) Knowledge leads to enjoyment, fame, and pleasure. Knowledge is the great friend in foreign land. Knowledge is prized by kings more than wealth. 10

Or,

The sun may rise from the west, the fire may be cold, the lotus may blossom from stone on the mountain-top, but the word of the good once said, can never be altered.

SANSKRIT.

SECOND PAPER.

Head Examiner—BABU MURALIDHAR BANERJEE, M.A.

<i>Examiners</i> —	{	BABU PASUPATINATH BHATTACHARYYA, M.A.
	{	BABU ABINASHCHANDRA GUHA, M.A.
	{	BABU NILMANI CHAKRABARTI, M.A.
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	{	<i>To look over answer-papers written in Devanagari character.</i>
	{	DR. PRABHUDUTT SASTRI, M.A., PH.D.
	{	<i>To look over answer-papers written in Uriya character.</i>
	{	BABU KASINATH DAS, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English any two of the following extracts:— 14

(a) ततोऽसौ भूमिपः पिहिताकारं स्फाटिकं द्वारमासाद्य प्रविशन्, मुर्द्धि समाहतो व्याघूर्णित इव स्थितः ।

एवं च सुयोधनस्तत्र विविधान् प्रलम्भान् प्राप्य, राजसूये महा-
क्रतो तामयन्नुतासृष्टिं प्रेक्ष्य पाण्डवानाम्, अप्रहृष्टेन चेतसा गजसाधूयं
जगाम । सुष्ठानोऽपि विविधान् भोगान्, पाण्डवैश्चर्यचिन्तया हरिणः
वृषः सञ्जातः । ततः सुतप्रियो धृतराष्ट्रो दुर्योधनादिदुर्मन्त्रणया

अवंनाशहेतुकं द्यूतमन्वजानसः । तदाकर्ण्य वासुदेवस्य कोपः सुमहान्
समभवत् ॥

(b) न हि सौश्रुति दानसचेर्धर्मः । सुतलेहं कलत्रहेहज्जानवेस्य,
ज्ञात्वा धर्ममेव गुहं न त्वया तृष्णा गणिता । देशे काले पात्रे च
दानं परमो धर्मः । दानादपि परतरा अद्वा । स्वर्गद्वारं हि दानम् ।
तद्ग पश्यन्ति नरा मोहात् । जितेन्द्रिया जितक्रोधास्तपसा युक्ता
यथाशक्तिप्रशयिनो नराः पश्यन्ति । अद्भुया स्वशक्त्या वारिदानं
स्वर्णकोटिदानं वा तुल्यफलम् । अकिञ्चनः किल रन्तिदेवो नाम
नृपतिरपो दत्त्वा शुद्धेन मनसा नाकपृष्ठं गतः । नायलब्धेः अद्वापूतेः
सूक्ष्मेरपि दानेर्धर्मस्तुष्यति ॥

(c) आरोहन्तमेवेनं निर्वर्ण्य हर्षोत्फुल्लदृष्टिः,—“अये ! प्रियस-
खोऽयमपहारवर्म्मैव” इति पञ्चान्निषीदताऽस्य बाहुदण्डयुगलम्
उभयभुजमूलप्रवेशितम् अग्नेऽत्रलम्बा, स्वमङ्गमालिङ्गयामास । स्वयं
च पृष्ठतो वलिताभ्यां भुजाभ्यां पर्यरेष्ठयत् । तत्तत्तणोपसंहृतालिकुन-
व्यतिकरञ्चापहारवर्म्मा, चापवैक्रकणपकर्षणप्रासपट्टिशमुघलतोम-
रादिप्रहरणजातम् उपयुञ्जानान् बलावलिपान् प्रतिबलवीरान् बहुप्रका-
रयोधिनः परितपतः क्षितौ विविक्षेप । क्षणेन चाद्राक्षीत् तदपि
सैन्यमन्येन समन्ततोऽभिमुखमभिधावता बलनिकायेन परिक्षिप्तम् ॥

2. Summarize in English the story of उच्छृष्टि. 8

3. Give the purport in English of *any two* of the following expres- 4
sions:—

(a) श्रुतिज्योत्स्नाश्च प्रकाशिताः पुराणपूर्णचन्द्रेण ।

(b) कृतञ्च प्रकाशनं नृबुद्धिकौशल्याम् ।

(c) तत्र लेखतोऽपि दूलतां गतिमगमन्मगधराजः ।

4. Expound the *samāsas* in *any two* of the following:— 4

(a) स्वस्वैरमरयावधूतपत्तिदत्तशर्मा ।

(b) अदभ्याधनिर्घोषगम्भीरम् ।

(c) अतिमातुषप्राणसत्त्वप्रज्ञाप्रकर्षणम् ।

5. Translate *any two* of the following extracts into English:— 30

(a) अस्मि कस्मिंश्चित् वनोद्वेषे वज्रदंष्ट्रो नाम सिंहः । तस्य
चतुरङ्क-क्रयमुखनामानो शृगालवृको भृत्यभूतो बदेवानुगतो तत्रैव वने

प्रतिवसतः । अथ अन्यदिने विंशेन कदाचित् आसन्नप्रसवा प्रसव-
वेदनया खड्गधातु अष्टा वङ्गी उपविष्टा कस्मिंश्चित् वनगहने समासा-
दिता । अथ तां व्यापाद्य यावत् उदरं स्फोटयति तावत् जीवन्मु-
दासेरकश्चिन्निष्क्रान्तः । सिंहोऽपि दासेरक्याः पित्रिसेन सपरिवारः
परं तृप्तिम् उपागतः । परं स्नेहात् बालदासेरकं त्यक्तं गृहम् आनीय
इदम् उवाच—भद्र ! न तेऽस्ति सुयोर्भयं मत्तो नान्यस्मादपि । ततः
स्वेच्छया अत्र वने आस्यताम् इति ॥

(b) अथ कदाचित् वनदंष्ट्रस्य केनचित् वन्येन मत्तगजेन सह
युद्धम् अभवत् । तेन मदवीर्यात् स दन्तप्रहारेस्तथा क्षतशरीरो
विहितो यथा—प्रचलितुं न शक्नोति । तदा क्षुत्तामकच्छस्ताम्
प्रोवाच—भोः । अन्विष्यतां किञ्चित् सत्त्वं येन गृहम् एवं स्थितोऽपि
तं व्यापाद्य आत्मनो गुप्ताकञ्च क्षुत्प्रणाशं करोमि । तत् श्रुत्वा ते
त्रयोऽपि वने सम्बराकालं यावद् भ्रान्ताः । परं न किञ्चित् सत्त्वम्
आसादितम् । अथ चतुरकश्चिन्तयामास—यदि शङ्कुकर्णोऽयं व्यापाद्यते
तत् सर्वेषां कतिचिद् दिनानि तृप्तिर्भवति ॥

(c) अस्ति जम्बुद्वीपे विन्ध्यो नाम गिरिः । तत्र चित्रवर्णो
नाम मयूरः पक्षिराजो निवसति । तस्यानुचरैश्चरद्भिः पक्षिभिरहं
दग्धारण्यमध्ये चरन्नवलोकितः पृष्ठम् । कस्त्वम् । कुतः समागतोसि ।
ततो मयोक्तम् । अहं कर्पूरद्वीपचक्रवर्तिनो हिरण्यगर्भनाम्नो राजहंस-
स्यानुचरः कीतुकादिशान्तरं द्रुमुपागतः । तच्छ्रुत्वा पक्षिभिरुक्तम् ।
तदनयोः को देशो भद्रतरो राजा च । ततो मयोक्तम् । आः किमेव-
मुच्यते । महदन्तरम् । यतः कर्पूरद्वीपः स्वर्ग एव । राजहंसश्च
द्वितीयः स्वर्गपतिः । अत्र मरुत्यले पतिताः किं यूयं कुरुष्व ॥

6. Construct sentences in Sanskrit illustrating the use of any five 10
of the following :—

- अकारेण governing an accusative.
- याच् governing two objects.
- अस्मिन् with an instrumental.
- The dative with the root कृ प्
- The ablative with words denoting refraining (विराम).
- The word अस्त्युक् regulating the case of a noun.
- एव in आत्मनेपद.
- तप in आत्मनेपद.

7. Give the **सुट्** third person singular of *any five* of the following 5 forms :—

शुजन्त of रुह्, **शुजन्त** of दुष्, **शुजन्त** of इन्, **शुजन्त** of ख्या ;
सनन्त of घ्राप्, **सनन्त** of लभ्, **सनन्त** of पा, **सनन्त** of ज्ञा .

8. Translate into Sanskrit the following :—

(a) There lived once a King Kuntibhoga, and a hermit of the 5 name of Durvāsas, who was exceedingly fond of deluding people.

Or,

He commissioned his own daughter Kunti to attend upon the hermit, and she diligently waited upon him.

(b) And one day he, wishing to prove her, said to her, 'cook 6 boiled rice with milk and sugar quickly, while I bathe, and then I will come and eat it.'

(c) The sage said this, and bathed quickly, and then he came to 6 eat it, and Kunti brought him the vessel filled with that food.

(d) And the hermit knowing that it was almost red-hot with the 8 heated rice, cast a look at the back of Kunti, and she, perceiving what was going on in the hermit's mind, placed the vessel on her back.

Or,

Then he ate to his heart's content while Kunti's back was being burnt, and, because she stood without being at all discomposed, the hermit was much pleased with her conduct and granted her a boon.

PĀLI.

Paper-setters— $\left\{ \begin{array}{l} \text{MAHĀMAHOPĀDHYĀYA DR. SATISCHANDRA} \\ \text{VIDYABHUSHAN, M.A., PH.D} \\ \text{BABU REBATINATH CHATTERJEE, M.A.} \\ \text{BABU SAIENDRANATH MITRA, M.A.} \end{array} \right.$

FIRST PAPER.

Examiner—BABU MUKUNDA BEHARY MULLICK. M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate three of the following extracts into English :— 24

(a) Yāva n' uppajjati Buddhō dhammarājā pabbhaṅkaro
 tāva aññe apūjesuṃ puthū samaṇabrāhmaṇe.
 Yadā ca sarasampanno Buddhō dhammaṃ adesayi
 atha lābho ca sakkāro titthiyānaṃ ahāyathā'ti.

(b) Nāhu assāsapassāso tñitacittassa tādino
 anejo santim ārabha yaṃ kālaṃ akari muni.
 Asallinena cittena vedanaṃ ajjhavāsaya,
 pajjotassēva nibbānaṃ vimokho cetaso ahū'i.

(c) Esā Namuci te senā kaṇhassābhippahāraṇi,
na naṃ asūro jināti, jetvā ca labhate sukhaṃ.
Esa muñjaṃ parihare, dhi-r-atthu idha jīvitaṃ,
saṅgāme me mataṃ seyyo yaṃ ce jīve parājito.

(d) Lābhā vata no anappakā
ye mayaṃ Bhagavantam addasāma,
saraṇaṃ taṃ upema cakkhuma,
satthā no hohi tuvaṃ mahāmuni.
Gopī ca ahaṇṇa assavā,
brahmacariyaṃ Sugate carāma,
jātimaraṇassa pāragā
dukkhass' antakarā bhavāma.

2. Give in English the story alluded to in either of the following:— 6

(a) Passa saddhāya silassa cāgassa ca ayaṃ phalaṃ.
nāgo nāvāya vaṇṇena saddhaṃ vahaṭi upāsakaṃ.

(b) Kaccchapo pāvisi vāriṃ, kuruṅgo pāvisi vanaṃ,
satapatto dumaggamhā dūre putte apānayiti.

3. Give the substance of two of the following in your own words in Pāli:— 8

(a) Ayasā va malaṃ samutthitaṃ,
tadutthāya tameva khādati,
evaṃ atidhonacāriṇaṃ,
sakakammāni nayanti duggatīṃ.

(b) Seyyo ayogulo bhutto tatto aggisikhūpamo
yaṃ ce bhuñjeyya dussilo raṭṭhapiṇḍaṃ asaṇḍato.

(c) Pamādo rajo sabbadā, pamādānupatito rajo,
appamādena vijjāya abbahe sallam attanoxti.

4. Give in English the meaning of five of the following terms:— 5
Sūkara-maddava, vālavedhi, theravāda, diṭṭhigatāni, vakkam,
vibhava-taṇhā, and sacca-kiriyaṃ.

5. Give in English an account of the conquest of Ceylon by Vijaya 7
as described in your text-book.

6. (a) Frame sandhi in the following:—Tissa iti: bhattu atthe; so 3
ahaṃ.

(b) Decline three of the following in the objective, ablative and 6
locative cases:—Ubho, satthu, itthi and go.

(c) Give the comparative and superlative forms of three of the 3
following:—Vuddho, appo, guṇavā and pasattho.

7. (a) Conjugate three of the following in the present tense (vatta- 6
mānā), past tense (parokkhā), and the aorist (ajjatanī):—Han, i, as,
su, labh.

(b) Expound the samāsa in the following:—Sabbavāda-visā- 4
rado; Tambabhūmi-rajo-phuṭṭho; laddhaviṇiyo; and dvi-sahassa-
dīpa-parivāresu.

(c) Frame short sentences in Pāli to illustrate the following:—A 3
nominative absolute, an abyayibhāva samāsa, and a passive voice.

8. Translate the following into Pāli:— 25
And so, great king, understand this yourself. Know that this is
no just cause for anger. Indeed, if you had not been taught this

lesson by me, you would have gone on taking cakes and sweets, fruit, and the like, until you became covetous through these acts of theft; then by degrees you would have been lured on to house-breaking, highway robbery, and murder about the villages; the end would have been, that you would have been taken red-handed and haled before the king for a public enemy and a robber; and you would have come in fear of public punishment, when the king should say, "Take this man, and punish him according to his crimes." Whence could have come all this prosperity which you now enjoy? Is it not through me that you have attained to such magnificence? Thus did his teacher talk over the king. And the courtiers, who stood round, said when they heard his speech, "Of a truth, my lord, all your magnificence really belongs to your teacher!"

PĀLI.

SECOND PAPER.

Examiner—BABU MAHIMARANJAN BARUYÁ, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

A. TEXT.

1. Translate into English *any two* of the following extracts, adding 16 notes where necessary:—

(a) Rājā paṃsuno sithilabhāvaṃ ñatvā sigālaṃ vissajjetvā nāga-balo thāmasampanno aparāparaṃ saṃcaranto ubho hatthe ukkhipitvā āvātamukhavattiyāṃ olubbha vātacchinnavalāhako viya nikkhamitvā thito amācche assāsetvā paṃsuṃ viyūhitvā sabbe uddharitvā amaccaparivuto āmakasusāṇe atthāsi. Tasmim samaye manussā ekaṃ matamanussaṃ āmakasusāṇe chaddentā dvinnāṃ yakkhānaṃ simantarikāya chaḍḍesuṃ. Yakkhā taṃ matamanussaṃ bhājetuṃ asakkontā 'mayāṃ imaṃ bhājetuṃ na sakkoma, ayaṃ silavarājā dhammiko, esa no bhājetvā dassati, etassa santike gacchāma' ti taṃ matamanussaṃ pāde gahetvā kaḍḍhantā rañño santikaṃ gantvā 'deva, amhākaṃ imaṃ bhājetvā dehīti' āhaṃsu.

(b) Atha sā nāvā sattame divase samuddamajjhe bhinnā. Te pi dve janā ekasmim phalake nipannā ekaṃ dipakaṃ pāpuṇṇesu. Tattha so nahāpito sakuṇe māretvā pacitvā khādanto upāsakassāpi deti. Upāsako 'alam mayham' ti na khādati. So cintesi 'imasmim thāne amhākaṃ thapetvā tīṇi saraṇāni aḍḍhā patitthā n'atthi' so tiṇṇaṃ ratanānaṃ guṇe anussari. Ath'assa anussarantassa tasmim dipake nibbatto nāgarājā sariraṃ mahānāvaṃ katvā māpesi. Samudadevatā niyyāmaṃ ahoṣi. Nāvā sattahi ratanehi pūrayittha. Tayo kūpakā indanilamanimayā ahesuṃ, sovaṇṇamayā laṅkāro, rajatamayāni yottāni, suvaṇṇamayāni padarāni.

(c) Tesāṃ samaggavāse vaṣantānaṃ aparabhāge Bodhisatto agāramajjhe ukkaṇṭhito kāme pahāya pabbajjāya namitacitto kilesa-ratiṃ analliyanto ekako va tiṭṭhati ekako va nisīdati ekako va sayati

bandhanāgāre baddho viya pañjare pakkhittakukkuto viya ca ahoṣi. Ath'assa aggamaheṣi 'ayaṃ rājā mayā saddhiṃ nābhiramati, ekako va tiṭṭhati nisidati seyyaṃ kappeti, ayaṃ kho pana daharo taruṇo, ahaṃ mahallikā, sīse me palitāni paññāyanti, yaṃ nūnāhaṃ "sīse deva ekapalitāni paññāyatīti" musāvādaṃ katvā eken' upāyena rājānaṃ patijānāpetvā mayā saddhiṃ abhiramāpeyyaṃ' ti cintetvā ekadivasaṃ rañño sīse ūkā vicinanti viya hutvā 'deva, mahallako si jāto, sīse te ekaṃ palitāni paññāyatīti' āha.

2. Expound the samāsa in. *āvāṭamukhavatṭhiyaṃ* and *indanīla-manimayā*. Derive *olubha* and *analliyanto*. Parse *vātaacchinnavalāhako* in (a) and *nīpannā* in (b) above. Conjugate the root of *nīpannā* in the parokkhā (past tense) 3rd person only Decline the base of *rasantānaṃ* in the ablative case.

3. *Either,*

Summarize in your own Pāli the Sihacamma-Jātaka.

Or,

Relate in your own Pāli the story alluded to in the following:—

'mama lohitaḥakkhassa nīcaṃ luddāni kubbato dantantaragato santo taṃ bahuṃ yaṃ hi jīvasi.' *

4. Translate into English one of the following extracts, adding brief notes on the subject-matter:—

(a) Evaṃ eva kho Vaccha yena rūpena Tathāgataṃ paññāpayamāno paññāpeyya taṃ rūpaṃ Tathāgataṃ pahīnaṃ ucchinnamūlaṃ tālāvatthukataṃ anabhāvakataṃ āyatīṃ anuppādammaṃ.

(b) 'Sabbam atthīti' kho Kaccāyana ayaṃ eko anto, 'sabbam n'atthīti' ayaṃ dutiyo anto, ete te Kaccāyana ubho ante anupamma majjhena Tathāgato dhammaṃ deseti.

5. Explain briefly one of the following doctrines:—

(a) 'There is no *Ego*.'

(b) 'Rebirth is not transmigration.'

(c) 'There is no continuous personal identity.'

B. GRAMMAR.

6. Join by the rules of sandhi any six of the following:—*iti—etaṃ*; *atta—atthaṃ*; *na—idaṃ*; *adhi—oharati*; *mā—ime*; *dhi—atthu*; *ajja—eva*; *nāga—āsado*.

7. Frame short sentences in Pāli to illustrate the uses of:—the ablative case, the abyayibhāva samāsa, the absolute case, and the passive voice.

8. *Either,*

Decline the numerals *satta* and *saṭṭhi* in all the cases.

Or,

Frame short sentences in Pāli to illustrate the uses of particles as expletives and intensives.

9. Conjugate two of the following roots:—*nī* in the ajjatāni (aorist), *as* in the vattamānā (present tense), *hū* in the parokkhā (past perfect).

C. UNSEEN.

10. Translate into English any three of the following:—

(a) 'Ācariya balavapurisena adhikaraṇiṃ ukkhipāpetvā adhikaraṇiṃ heṭṭhā udakapātīṃ thapāpetvā adhikaraṇiṃ majjhe imaṃ

sūcim paharathā' ti. So tathā kāretvā ādhikarāṇimajjhe sūcim aggena pahari. Sā ādhikarāṇim nibbijhitvā udakapitthe kesaggamatam pi uddham vā adho vā ahutvā tiriyaṃ patitthāsi.

(b) Tada Bārāpasiraṇṇo matassa sattamo divaso hoti. Purohito raṇṇo sarirakiccaṃ kāretvā aputtake rajje sattamadi vasāni phussaratham vissajjesi. Phussaratho nagarā nikkhamitvā tattha caturāṅginiyā senāya parivuto anekasatehi turiyehi vajjamānehi uyyānadvāram pāpuṇi.

(c) Atha naṃ Maṇḍavyo 'utthehi bhadde, khamāmi te, ito pana patthāya mā pharusacittā ahoṣi, ahaṃ te appiyaṃ na karissāmi' āha. Bodhisatto pi Maṇḍavyam āha: 'āvuso tayā dussamgharaṃ dhanam saṃgharitvā kammaṃ ca phalaṃ ca asaddahitvā dānaṃ denatena ayuttam kataṃ, ito patthāya dānāni saddahitvā dadeyyāsi.'

(d) Tasmiṃ assamapade vanajetthakarukkhe nibbattadevatāpi otaritvā āgantvā tesāṃ nēva santike nisīdi. Ānañjakāraṇaṃ kāriyamāno dukkham adhiyāsetum asakkonto ālānaṃ bhinditvā palāyitvā araṇṇaṃ pavittho eko vāraṇo kālena kālaṃ isigaṇaṃ vandati, so pi āgantvā ekamantam atthāsi.

BENGALI.

(For Female Candidates.)

COMPULSORY.

Paper-setters—{ RAI SAHEB DINESCHANDRA SEN, B.A.
BABU JOGINDRANATH BASU, B.A.

FIRST PAPER.

Examiner—MRS. KUMUDINI BASU, B.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Explain any four of the following extracts with reference, where necessary, to their contexts:—

(a) গৃহাশ্রম নহে মদালস আসক্তির
লিপ্সালিপ্ত সন্তোগের হেতু ; বর্ণাশ্রম
ইন্দ্রিয় নিগ্রহে নহে । প্রবল চঞ্চল
প্রবৃত্তিরে দিতে হ'বে নিবৃত্তির হাতে
মদলের সেবা লাগি ।

(b) জ্ঞান না কি আমরাও স্থষ্টির প্রত্যয়ে
জীবজন্ম তীর্থযাত্রী হয়েছি বাহির -

নিরাশ্রয়, নিরালস্য ; শূন্তে শূন্তে কভু
জন্ম হ'তে জন্মান্তরে ঘূরি ধাইতেছি
যাপিয়া অজ্ঞাত বাস চিরগৃহ পানে,
ক্রমোন্নতি মধ্যদিয়া পূর্ণোন্নতি তরে ।

(c) রবিকর যবে, দেবি. পশে বনস্থলে
তমোময়, নিজগুণে আলো করে বনে
সে কিরণ ; নিশি যবে যার কোন দেশে
মলিন বদন সবে তার সমাগমে ;
যথা পদার্পণ তুমি কর, মধুমতি !
কেন না হইবে স্মৃতি সর্বজন তথা ?

(d) চঞ্চল পতাকাযুত পুষ্পকে আবার
উঠিলা রাঘব লয়ে অমুজ হ'জনে,
চপলা শোভিত যথা মেঘেতে সন্ধ্যার
উদিল। চন্দ্রমা বধু, বৃহস্পতি সনে ।

(e) রসাতল হ'তে বিষ্ণু স্বজন প্ররাসে
উৎসাহিলা নববধু ধরারে যখন
এ স্বচ্ছ সাগরজল প্রলয়-উচ্ছ্বাসে
হয়েছিল ক্ষণ তাঁর মুখাবগুণন ।

2. Unfold the allusions in :—

6

- (a) মস্তপুত নিজ দেহ দিলেন আহুতি ।
(b) অশ্ব অধেষণে ধরা ধনে পুরাকালে ।
(c) ভৃগুরাম-গুরু বলে ।

3. What is the subject-matter of the *Raghubansha* ? Name its author, and state what is popularly known about his life. 9

4. Comment on the underlined words :—

সরস বসন্তে যথা ভেটেন মধুরে ; সরসী হরবে পূজে কৌমুদিনী 3
ধনে ; যাতার সোহাগী গুরে পিতার দুলালী ।

5. Expound the *samāsas* in the following, and define any three of them :— 9

কুসুমন্তবকন্তনমগিত শরীর, উন্মিল্পর্শশীতবায়ু, and বিরামবরপ্রার্থনে ।

6. Derive জিহ্বা, প্রিয়বদা, গৌরব, ভাস্কর, ঐরাবত, and মৌম । 3
7. Mention some of the archaic words used by Michael in his poem. 3
8. Form adjectives from কুল, গঙ্গা, পশু, and পর্বত ; and nouns 4
from কৃশ, শুচি, দক্ষ, and নিকট.

9. Correct the following, giving reasons:—

9

(a) সেই বিজ্ঞান অন্ধকারে পথহারী বালিকা ইত্যন্ত ভ্রমণ করিতে করিতে ক্লান্ত ও অবসন্ন হইয়া পড়িল।

(b) আমি যে আমরণ কি বিষয় মনোকাণ্ডে আছি তাহা কেবল আমার হৃদয়াধিষ্ঠাত্রী বিধাতা অবগত আছেন।

(c) আমি কার্যসম্পন্ন, উৎসাহিত পুরুষ চাই, অলস পুরুষে আমার আবশ্যক কি ?

10. Translate into English *any two* of the following extracts:—

24

(a) যে নীতি অবলম্বন করিয়া আকবর বাদসাহ ভারতে মোগল সাম্রাজ্য সুদৃঢ় করিয়াছিলেন, সেই নীতি অবলম্বন করিয়া বাঙ্গালার একজন নবাব হিন্দুজাতির, বিশেষতঃ বাঙ্গালীগণের আশীর্বাদ লাভ করিয়াছিলেন। তাঁহার নাম প্রাচীনস্মরণীয় আলিবর্দী খাঁ মহাবৎ জঙ্গ। আলিবর্দী খাঁর নিকট বাঙ্গালী যেমন ঋণী আকবরের নিকট সমগ্র হিন্দুজাতি সেরূপ ঋণী কি না সন্দেহ। যদিও আকবরের প্রবর্তিত উদার নীতি আলিবর্দীর সময় পর্যন্ত মোগল সাম্রাজ্যে প্রচলিত ছিল বলিয়া তাঁহার সে বিষয়ে বিশেষ কোন মৌলিকতা নাই, তথাপি তিনি বাঙ্গালীকে যে সমস্ত অধিকার প্রদান করিয়াছিলেন, তাহা বাঙ্গালার ইতিহাসের আর কোন স্থানে দৃষ্ট হয় না। আকবরের শাসন তাঁহার রাজত্বে হিন্দুজাতির বা হিন্দুধর্মের প্রতি কোনরূপ অত্যাচার হইবার সম্ভাবনা ছিল না।

(b) হে বিভো ! আমাদের মৌখিক পূজা কিছুই নয় ; আমরা যেন আমাদের সমগ্র জীবন ও চরিত্রের দ্বারা তোমার পূজার উপযুক্ত হইতে পারি ; যেন হৃদয়মনকে নির্মল রাখিয়া এবং জীবনের কর্তব্য সকল সুচারুরূপে সম্পন্ন করিয়া তোমার চরণে বসিবার উপযুক্ত হই। জ্ঞানে গভীরতা, প্রেমে বিশালতা, চরিতে সংযম, কর্তব্যজ্ঞানে দৃঢ়তা ও নরসেবা এই যে পূর্ণাঙ্গ সাধুচরিত্রের আদর্শ ইহা যেন আমরা সাধন করিতে পারি। তুমি আমাদেরকে যে স্নেহ, সম্পদ দিয়াছ, তাহা কেবলমাত্র আমাদের নিজের জন্য নহে, ইহা যেন সর্বদা স্মরণ রাখিতে পারি। আমাদেরকে সর্ববিধ পাপ হইতে রক্ষা কর, এবং দিন দিন তোমার পথে অগ্রসর কর।

(c) আমাদের তরুণবয়স্ক দেখিয়া রাজার হৃদয়ে করুণার সঞ্চার হইল। তিনি আমার নাম, ধর্ম, জাতি ব্যবসায়াদির বিষয় জিজ্ঞাসা করিলেন। আমরা তাঁহার বাক্যের ঐচ্ছিক ও গাভীর্য্য দর্শনে চমৎকৃত হইলাম। আমি উত্তর করিলাম, “হে নরদেব সিংহ ! আপনি অবগত

আছেন টুই নগর দশ বৎসর অবরুদ্ধ থাকিয়া পরিশেষে ভ্রমাবশেষ হয় এবং ঐ ব্যাপারে বহুসংখ্যক ঐসদেশীয় প্রধান বীরপুরুষ বিনষ্ট হন। ইধাকার রাজা হউলিসিস আমার পিতা; তাঁহার বিজ্ঞতার খ্যাতি ভূমণ্ডলের সর্বত্র ভ্রমণ করিতেছে। তাঁহারই বুদ্ধিকৌশলে টুই নগর নিপতিত হইয়াছে।”

11. Convert into prose order and translate:—

10

ভুলো না দাসীয়ে, সাধি! যতদিন বাঁচি, এ
মনোমন্দিরে রাখি, আনন্দে পূজিব ও প্রতিমা,
নিত্য যথা আইলে রজনী, সরসী হরষে পুজে
কৌমুদিনী ধনে। বহু ক্লেশ, স্নাকেশিনি!
পাইলে এ দেশে; কিন্তু নহে দোষী দাসী।

BENGALI.

(For Female Candidates.)

COMPULSORY.

SECOND PAPER.

Examiner—MRS. KUMUDINI BASU, B.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Explain any three of the following passages:—

30

(a) কবি তাঁহার কল্পনা-উৎসবের যত করুণাবারি সমস্তই কেবল জনকভনয়ার পুণ্য অভিষেকে নিঃশেষ করিয়াছেন। কিন্তু আর একটা যে স্নানমুখী, ঐহিকের সর্বস্বখবঞ্চিতা রাজবধূ সীতাদেবীর ছায়াতলে অবগুপ্তিতা-হইয়া দাঁড়াইয়া আছেন, কবিকমণ্ডলু হইতে একবিন্দু অভিষেক বারিও কেন তাহার চিরহুঃখান্তিতপ্ত ললাটে সিক্ত হইল না? হায়, অব্যক্তবেদনা দেবী উদ্বিগ্না, তুমি প্রভাবের তারার মত মহাকাব্যের স্নমেকশিখরে এক বার মাত্র উদিত হইয়াছিলে, তার পরে অরুণালোকে আর তোমাকে দেখা গেল না।

(b) লোকারণ্য নয়নের ঐতিকর এবং জন্মের উদ্দীপক। যে অসংখ্য লোক একত্র মিলিত হইয়া ঐরূপ অপূর্ণ মুষ্টিধারণ করে, তাহা-

দের প্রত্যেকেই এক এক খানি কাব্য অথবা এক এক খানি ইতিহাস। প্রতিজ্ঞনের মানসপটে কতই বা সুখের কথা এবং কতই বা দুঃখের কথা লিখিত রহিয়াছে। প্রতিজ্ঞনের মস্তকের উপর বিশ্ববিপদের ঝঞ্ঝাবাসু কতভাবে ও কতবার প্রবাহিত হইয়াছে; সংসারের প্রতিকূল শ্রোতে প্রতিজ্ঞনই কত বিড়ম্বনা ভোগ করিয়াছে, তাহা বাক্যে নির্বাচন করা যায় না।

(c) এই সকল অনার্থ্য নিরক্ষর হইয়াও নিষ্কপট, জ্ঞানালোকে উদ্ভাসিত না হইয়াও সত্যপ্রিয় এবং সভ্যতার অহুমোদিত রীতিপদ্ধতির অম্লগত না হইয়াও সারল্যপূর্ণ ও স্পষ্টবাদী। ইহারা কোন অপরাধ করিলে স্বীকার করে; সেই অপরাধে মৃত্যুদণ্ডের ব্যবস্থা থাকিলেও সত্য হইতে অণুমাত্র বিচলিত হইতে ইহাদের প্রবৃত্তি হয় না। ইহারা প্রতিশ্রুতিপালনে তৎপর, অতিথির প্রতি সদয়, দলপতির প্রতি শ্রদ্ধাযুক্ত। ইহারা আপনাদের দলপতির কার্যসাধন জন্ত আত্মবিসর্জনে কাতর হয় না।

(d) যিনি কিঞ্চিন্নাত্র অল্পধাবন করিয়া দেখেন, তিনিই দেখিতে পান, সমস্ত ব্রহ্মাণ্ডময় একটা সুন্দর বিধি কার্য্য করিতেছে। সেই বিধির নিকটে মস্তক অবনত করিয়া যিনি আপনার জীবন নিয়মিত করেন, তিনিই ভাগ্যবান; তাঁহার যত বয়স বৃদ্ধি হয়, তিনি ততই আনন্দ সঞ্চয় করিতে থাকেন; আর যিনি তাহা না দেখিয়া তরঙ্গতাড়িত কাঁঠখণ্ডের ন্যায় আপনার জীবন উচ্ছৃঙ্খল করিয়া ফেলেন, তিনি হতভাগ্য; ভবিষ্যৎ অন্ধকার দেখিয়া হতাশ হইয়া পড়েন।

2. Render into English any two of the following extracts:—

24

(a) তিনি প্রাণদণ্ডবিষয়ক আদেশ প্রাপ্তির পর ত্রিশ দিন কারারুদ্ধ ছিলেন। ঐ কয়েক দিবস তদীয় মিত্র ও শিষ্য সমুদয় সতত তাঁহার নিকট উপস্থিত ছিল। তিনি অবিষয় হৃদয়ে ও অগ্নানবদনে তাহাদের সহিত সহবাস ও সদালাপ করিয়া এবং জীবনান্ত পৰ্য্যন্ত নানাবিধ উপদেশ দিয়া কালহরণ করিয়াছিলেন; ক্ষণমাত্র বিষয় ছিলেন না; বরং অন্তরে তাঁহার নিমিত্ত শোকাবিত্ত দেখিলে হিতগর্ভ রচনে অল্পযোগ করিতেন।

(b) বাঙ্গালী রামতুলাল পাঁচ টাকা বেতনে চাকরী আরম্ভ করেন। পারসী জেমসেটজী কিছু দিন দোকানে বিনা বেতনে শিক্ষানবিশ ছিলেন। কিন্তু বাল্যকাল হইতে দুই জনেরই বাণিজ্যের প্রতি বিশেষ লক্ষ্য ছিল। একজন তাঁহার সামান্য আয় হইতে অতি-কঠোর শত মুদ্রা সঞ্চয় করিয়া কাঠের ব্যবসারে নিয়োগ করেন, অপর

জন তাঁহার যথাসর্ব্ব্ব এক শত কুড়ি মুদ্রা লইয়া বৈদেশিক বাণিজ্যে প্রবৃত্ত হন।

(c) তিনি স্বভাবতঃ শূণীল, সরল ও প্রফুল্লচিত্ত ছিলেন ; এ নিমিত্ত সকল লোক তাঁহার সহবাসের অভিলাষ করিতেন। লোকের সর্ব্বদা যাতায়াত দ্বারা তাঁহার মহাহঁ সময়ের বিলকণ অপচয় হইত ; তথাপি তাঁহার আকারে বা ব্যবহারে কিঞ্চিদ্ভিন্ন বিরক্তির ভাব লক্ষিত হইত না। তিনি অবসর পাইলেই হস্তে লেখনী ও সম্মুখে পুস্তক লইয়া বসিতেন।

3. Write full explanatory notes on the following :—

10

বিষধরজড়িত চন্দনলতার জ্বার ভীষণরমণীয়া ; কোকিল-লোচনচ্ছবি সন্ধ্যা ; স্বপদনিহিতলোচনা ; অন্নানপরাগশূন্তমাল্যধারী ; and পরাস্তলভ্যপানপাত্র।

4. Explain with reference to their contexts :—

6

(a) ধর্ম্ম অতিশয় হৃদয়বিধানের গম্য ; সর্ব্বপ্রকার ব্যসন হইতে মুক্ত না হইলে কদাপি ধর্ম্মলাভ হয় না। ব্যসন তিন প্রকার ; মিথ্যা কথন, ইন্দ্রিয় পরতন্ত্রতা এবং বৈর ব্যতীত মৌদ্ভাব ধারণ।

(b) তিনি যেন ব্রহ্মচর্য্যের অলঙ্কার, ধর্ম্মের যৌবন দশা, সরস্বতীর বিলাস, সর্ব্ববিদ্যার স্বরস্বরপতি। তাঁহার দেহকান্তি শীতকালে ফুটিত-প্রিয়সুমঞ্জসীভূষিত কাননের মত গৌর বর্ণ।

5. Translate into English :—

10

বিবাহের পর রামের বাসের জন্ত এক স্বতন্ত্র প্রাসাদ নির্দিষ্ট হইয়াছিল। রাম রাজকার্য্যবিষয়ে পিতার সহায়তা এবং মাতৃগণের সেবা শুশ্রূষা করিয়া অবসর পাইলেই সীতার আবাসে আসিয়া উপস্থিত হইতেন। তিনি প্রিয়তমা জানকীর সহিত কত মনোহর গল্প করিতেন, কত সাধুপ্রসঙ্গে সময় অতিবাহিত করিতেন, সীতাকে কত শাস্ত্রোপদেশ শ্রবণ করাইতেন।

6. Account for the न or ण, स or ष respectively in the following :—

4

नरनाथ and कारण ; पुरस्कार and बहिष्कार.

7. Join, quoting rules, the undermentioned words in the sandhi form :—

2

তরু and ছায়া ; মহান্ and শব্দ ; নিঃ and রোগ ; হরি and চন্দ্র.

8. Comment grammatically on—

2

উদ্বিহলা and নায়কী.

9. Give *two* examples of each of the following :—

4

বহুতীহি, মন্ত্রমো তৎপূরুষ, ময়াহারহৃদ, and অর্যসীভাব.

10. Describe *one* of the following, avoiding the language of the text as far as possible :— 8

(a) The mountain lake অর্যসীভাব.

(b) The advent of the rainy season.

(c) The reunion of দময়ন্তী with নল.

ARABIC.

COMPULSORY.

Paper-setters—
 SHAMS-UL-ULMA ABU NASR MUHAMMAD
 WAHEED, M.A.
 SHAMS-UL-ULMA SHAIKH MAHMUD GILANI.
 SHAMS-UL-ULMA KAMALUDDIN AHMAD.

FIRST PAPER.

Examiner—SHAMS-UL-ULMA ABU NASR MD. WAHEED, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

I. Translate into English any *two* of the following extracts :— 16

A.

وَأَوْحَيْنَا إِلَىٰ مُوسَىٰ أَنْ أَلْقِ عَصَاكَ - فَإِذَا هِيَ تَلْقَفُ مَا
 يَأْفِكُونَ * فَوَقَعَ الْحَقُّ وَبَطَلَ مَا كَانُوا يَعْمَلُونَ * فَغَابُوا هُنَالِكَ
 وَانْقَلَبُوا صَافِرِينَ * وَالْقَبِي السَّحَرَةُ سَاجِدِينَ * قَالُوا أَمَدًا بِرَبِّ
 الْعَالَمِينَ - رَبِّ مُوسَىٰ وَهَارُونَ * قَالَ فِرْعَوْنُ أَمْ أَتَمُّ بِهِ قَبْلُ أَنْ
 أَدْنَىٰ لَكُمْ - إِنَّ هَذَا لَمَكْرٌ مَكْرَتُمُوهُ فِي الْمَدِينَةِ لِتُخْرِجُوا مِنْهَا
 أَهْلَهَا - فَسَوْفَ تَعْلَمُونَ * لَأَقْطَعَنَّ أَيْدِيَكُمْ وَأَرْجُلَكُمْ مِنْ خِلَافِ ثُمَّ

لَا صِلَابَكُمْ أَجْمَعِينَ * قَالُوا إِنَّا إِلَىٰ رَبِّنَا مُنْقَلِبُونَ - وَمَا نُنْقِمُ مِنْكَ إِلَّا
أَنْ أَمْنَّا بِآيَاتِ رَبِّنَا لَمَّا جَاءَتْنَا - رَبَّنَا أَفْرِغْ عَلَيْنَا صَبْرًا وَتَوَفَّنَا
مُسْلِمِينَ

B.

وَقِيلَ يَا أَرْضُ ابْلَعِي مَاءَكَ وَيَا سَمَاءُ أَقْلِعِي وَغِيضَ الْمَاءُ -
وَقُضِيَ الْأَمْرُ وَاسْتَوَتْ عَلَى الْجُودِيِّ وَقِيلَ بُعْدًا لِلْقَوْمِ الظَّالِمِينَ *
وَنَادَىٰ نُوحٌ رَّبَّهُ فَقَالَ رَبِّ إِنَّ ابْنِي مِنْ أَهْلِي وَإِنَّ وَعْدَكَ
الْحَقُّ - وَأَنْتَ أَحْكُمُ الْكَافِرِينَ * قَالَ يَا نُوحُ إِنَّهُ لَيْسَ مِنْ
أَهْلِكَ - إِنَّهُ عَمَلٌ غَيْرُ صَالِحٍ - فَلَا تَسْأَلْنِي مَا لَيْسَ لَكَ بِهِ عِلْمٌ -
إِنِّي أَعْطُكَ أَنْ تَكُونَ مِنَ الْجَاهِلِينَ * قَالَ رَبِّ إِنِّي أَعُوذُ بِكَ
أَنْ أَسْأَلَكَ مَا لَيْسَ لِي بِهِ عِلْمٌ - وَإِلَّا تَغْفِرْ لِي وَتَرْحَمْنِي أَكُنْ
مِنَ الْخَاسِرِينَ *

C.

قَالَ إِنَّمَا أَشْكُو بَثِّي وَحُزْنِي إِلَى اللَّهِ وَاعْلَمْ مِنَ اللَّهِ مَا لَا
تَعْلَمُونَ - يَا بَنِيَّ أَهْبُوا تَحْسَسُوا مِنْ يُوسُفَ وَآخِيهِ وَلَا تَيَاسُوا
مِنْ رُوحِ اللَّهِ - إِنَّهُ لَا يَيَّاسُ مِنْ رُوحِ اللَّهِ إِلَّا الْقَوْمُ الْكَافِرُونَ -
فَلَمَّا دَخَلُوا عَلَيْهِ قَالُوا يَا أَيُّهَا الْعَزِيزُ مَسْنَا وَأَهْلْنَا الضُّرَّ وَجِئْنَا
بِبَضَاعَةٍ مُزْجَاةٍ فَأَرْفِ لَنَا الْكَيْلَ وَتَصَدَّقْ عَلَيْنَا - إِنَّ اللَّهَ يَجْزِي

الْمُتَصَدِّقِينَ * قَالَ هَلْ عَلِمْتُمْ مَا فَعَلْتُمْ بِيُوسُفَ وَأَخِيهِ إِذْ أَنْتُمْ
جَاهِلُونَ * قَالُوا إِنَّكَ لَأَنْتَ يُوسُفُ - قَالَ أَنَا يُوسُفُ وَهَذَا أَخِي -
قَدْ مَنَّ اللَّهُ عَلَيْنَا - إِنَّهُ مِنْ يَتَنِي وَيَصْبِرُ فَرَكَّ اللَّهُ لَا يُضِيعُ أَجْرَ
الْمُحْسِنِينَ *

2. (a) Parse the underlined words.

6

(b) Give the تَعْلِيلُ of:—

5

أَعْظُ - يَتَنِي - يُضِيعُ - اسْتَوَتْ - غِيَضُ

3. Explain:—

4

إِذْ قَالَ يُوسُفُ لِأَبِيهِ يَا أَبَتِ إِنِّي رَأَيْتُ أَحَدَ عَشَرَ كَوْكَبًا
وَالشَّمْسَ وَالْقَمَرَ رَأَيْتُهُمْ لِي سَاجِدِينَ *

Show how this dream was fulfilled.

4. Translate into English:—

9

وحكي عن نبي النون المصري رحمه الله قال ذهبته الى
شاطئ النيل لغسل ثيابي - فبينما انا واقف و اذا بعقرب من
اعظم ما يكون مقبلة على - ففرغت منها واستعدت بالله ان
يكفيني شرها - فسارت حتى وصلت الى ساحل النيل - و اذا
بضفدع كبير خرج من الماء - فركبت ظهره فطلعت خلفها -
ولم ازل ارقبها الى ان جاءت الى شجرة كبيرة الاغصان كثيرة الظلال
و اذا شاب امرد نائم نحتها وهو مخمور - فقلت لا حول ولا قوة
الا بالله - فجاءت هذه العقرب من الجانب الآخر الى لدغ هذا
الفتى واضمرت اذا دنت منه قتلته - فوقفت قريباً منه - و اذا
بتنين عظيم قد اقبل يريد قتل الفتى فهمت العقرب اليه فظفرت
به ولزمت دماغه ولم تزل به حتى قتله - ثم عاد الى النيل -

و الضفدع ينتظرها - فركبت ظهرا و انا خلفها انظرها وعادت الى
الجانب الذي جاءت منه - فرجعت الى الشاب وانا انشد هذه
الابيات *

* شعر *

يا راقد و الخليل يحفظك * من كل سوء يكون في الظلم
كيف تنام العيون عن ملك * ياتيك منه فوائد النعم
فانتبه الفتى على كلامي فاخبرته بالقصة - فتأب ونزع ثياب اللهو
ولبس ثياب السباحة واستمر على ذلك حتى مات رحمة
الله عليه *

5. Give a brief sketch of the life of the author of the book from which the above passage is taken. 5

6. Give the singular or the plural, as the case may be, of :— 4

شاب - ضفدع - الظلم ء فتى - شاطئ - عقرب - عظيم - خليل *

7. State the rules relating to منادى 4

8. Reproduce in your own Arabic the following :— 7

قصة جماعة من الدهرية و ابى حنيفة رحمه الله تعالى

9. Rewrite the following, giving vowel-points :— 10

حكى ان انسانا هرب من اسد فالتجأ الى شجرة فصعد عليها
و اذا فوقها دب يلتقط ثمرها - فجاء الاسد تحت الشجرة ثم جلس
ينتظر نزول الانسان فالتفت الرجل الى الدب فاذا هو يشير اليه
باصبعه على فمه ان اسكت لكلا يشعر الاسد اني ههنا - فتحير
الرجل و كان معه سكين لطيف فاخذ يقطع الغصن الذي عليه
الدب حتى انهأه - فوقع الدب على الارض فوثب عليه الاسد
فتصارعا فافترس الاسد الدب وكرراجعا و نجا الرجل باذن الله
تعالى *

10. Rewrite the following sentences correctly, and give reasons: — 10

- (١) رَأَيْتُ مَسَاجِدًا فِي الْكَلْبَةِ *
 (٢) يَا زَيْنَبَا مَا تَفْعَلُ بِيَدِكَ الْيَمَنِ *
 (٣) لَنْ فِي هَذَا الرَّجُلِ وَجَعٌ شَدِيدٌ *
 (٤) يَا أَيُّهَا النَّسَاءُ لِمَ تَخْرُجُونَ مِنْ بُيُوتِكُمْ
 (٥) رَأَيْتُ ثَلَاثَةَ إِمْرَأَةٍ وَاحِدَ عَشَرَ رَجُلًا *
 (٦) لَنْ أَرْدُكُمْ حَتَّى تَرْزُقُونَنِي أَمْسٍ *
 (٧) اْعْلَمْ يَا إِخْوَانِي أَنْكُمْ إِلَى اللَّهِ رَاجِعِينَ *

11. Translate into Arabic:—

20

Either,

A.

The Muslim missionary's method in the interior of Africa is simplicity itself. His sole paraphernalia consists of the Holy Quran. He arrives at the outskirts of a village, seats himself under a tree, opens the Book and proceeds to read. At the five appointed times he does his prayers. It must be borne in mind that he neither at first speaks the language of the people nor is he supplied with food. In due course some straying villager arrives; he watches from afar the actions of the stranger and returns to the village with the tidings. The Chief collects the Elders and they approach the missionary in a body. By signs they ask him whence he comes and his business. He informs them, also by signs, that he is a servant and messenger of Allah. They inquire whether he needs food, and on his replying in the affirmative, a messenger is dispatched to procure a substantial meal. The Chief requests him to return with him to the village, which invitation he at first invariably declines.

Or,

B.

Imam Bukhari, who learned by heart six hundred thousand *ahadis*, had to live on the herbs of the jungle for three days in one of his journeys as student. Another student of *hadis*, Hajjaj Bagdadi, took with him a hundred loaves when he left his house in the pursuit of knowledge. But for a few books and these hundred loaves he did not possess anything else in the world. With these hundred loaves he spent some time with his teacher, Shahábah. When these loaves were all eaten he had to leave the inspiring company of his teacher. You will ask with wonder how he contrived to eat his dry morsels of bread without any gravy. Well, he had devised an excellent scheme. He used to eat his food with the help of the inexhaustible waters of the Tigris!

ARABIC.

COMPULSORY.

SECOND PAPER.

Examiner—MAULAVI MD. MUSA, B.A.*Candidates are required to give their answers in their own words as far as practicable.**The figures in the margin indicate full marks.*

1. Translate into English :—

14

A.

قد ذكرنا سنة ثلاث وثمانين غزوة شهاب الدين الغوري الى
 بلد الهند وانهزمه وبقى الى الآن وفي نفسه الحقد العظيم
 على الجند الغورية الذين انهزموا وما الزمهم من الهوان فلما كان
 هذه السنة خرج من غزنة وقد جمع عساكرة و سار فيها يطلب
 غزوة الهند الذي هزمه تلك النوبة فلما وصل الى برشاوور تقدم
 اليه شيخ من الغورية كان يدل عليه فقال له قد قربنا من العدو وما
 يعلم احد اين يمضى ولا من الامراء يقصد ولا ترد على الامراء
 سلاما وهذا لا يجوز فعله فقال له السلطان اعلم اننى منذ هزمنى
 هذا الكافر ما نمت مع زوجتي ولا غيرت ثياب البياض عني وانا
 سائر الى عدوي ومعتمد على الله تعالى لا على الغورية ولا
 على غيرهم *

B.

فانك ايها الملك السعيد جده الطالع كوكب سعدة - قد ورثت
 ارضهم وديارهم واموالهم ومنازلهم التي كانت عدتهم فاقمت
 فيما حولت من الملك ورثت من الاموال والجنود - فلم تقم
 بذلك بحق ما يجب عليك بل طغيت وبغيت - وعوتت

وعلوت على الرعية واسات السيرة وعظمت منك البلية - وكل
الاولى والاشبه بك ان تسلك سبيل اسلافك وتتبع آثار الملوك
قبلك وتتقوا محاسن ما ابقوه لك وتقلع عما غار لازم لك وشينه
واقع عليك - وتحسن النظر برعيتك - وتسنى لهم سنن الخير
الذي يبقى بعدك ذكره ويعقبك الجميل فخره - ويكون ذلك
ابقى على السلامة والدم على الاستقامة *

2. (a) What kind of word is منذ ? What is the root, صيغة, and 4
تعليل of نمت ? What is the force of كان if used before a verb ?

(b) Write the derivation of طغيت, علوت, تسن, and لم تقم, and 4
mention if there is any تعليل in these words.

(c) Rewrite one of the extracts in Question 1 with full vowel- 3
points.

3. Write briefly a summary of Bedpa's lecture to the King in your 5
own Arabic.

* Or,

Give a short account of ابراهيم الخليل عم as he is described by 5
Ibn-ul-Athir, in your own Arabic.

4. Translate into English :—

30

A.

اتَّفَقَ ان فارسا سار بجواده فى السهل - حتى دخل به غابة
ملتقاة الاشجار - وهناك ابصر عريضا - وكان الفارس شجاعا - فترجل
ودخل العرين - ولحسن طالعہ كان الاسد متفبيبا - فوجد فيه
شبلين - فحملهما - وانصرف على جواده - وهو ينظر الى
ورائه حذرا من ان يطردة الاسد - فيفترسه - فلم يكن الا القليل -
حتى عاد الاسد الى عرينه - فلم يجد فيه شبلية - فزأر - وسار
يسعى فى طلب السارق - فرأه على جواده - وقد اتسع بينهما
المجال - فامعن الاسد فى العدو - ولكن اني له ادراك الجواد -
اذا كان من جياذ الخيل - وعلى بعد منه *

B.

الزمن هو المدة التي تقاس - او يمكنك قياسها - و المقياس
 القرون و السنين و الاشهر و الايام و الساعات و الدقائق و الثواني -
 وسنذكر جميع - ذلك - فاعلم ان الزمن يقسم الى ثلاثة اقسام -
 الماضي و الحاضر و المستقبل - فالماضي ما مر من ايامنا وأمس -
 و الحاضر هو اليوم الذي نحن فيه - و المستقبل هو الغد - فقد
 علمت ان الزمن يقاس - و مقياسه الثواني و الدقائق
 و الساعات و الايام و الاسابيع و الاشهر و السنين و القرون - و كل
 ستين ثانية دقيقة - و كل اربع وعشرين ساعة يوم - و كل سبعة
 ايام اسبوع - و كل ثلاثين يوما شهر - و كل اثني عشر شهرا
 سنة - و كل مائة سنة قرن *

C.

الانسان افضل خلق الله يسمو بمعارفه - و ما نراه من التفاوت
 بين افرادة نراه بين سائر المخلوقات - فما بين العالم و الجاهل
 ما بين الصخر الاحرش الثابت فى البرية و الصخر الذي حسنته
 يد الصانع وزينته - حتى صار فى جملة التحف التي تعرض
 فى قصور الملوك - و الانسان مخلوق اولا لتمجيد الخالق عز
 وجل فى جميع اعماله - لما منحه من النعم و المواهب
 العظيمة *

5. (a) Are these words correctly written?—

5

لَمْ يَقُولَ - لَمْ تَقُولَا - لَمْ تَاتُوا - لَنْ تَدْعِيَنَّ

State what the correct form should be, and give your reasons.

(b) Mention the three kinds of **المفعول المطلق** and give examples of each, explaining the difference. 3

(c) Construct sentences of your own in illustration of the correct use of these words:— 5

ایاکم ذا - الثان - الو - ليس

(d) Are these words منصرف or منصرف؟ Give your reasons. 2

ابراهيم - رحمان - انسان - مساجد

6. Translate into Arabic:—

25

(a) Sir Salar Jang was born in the year one thousand eight hundred and thirty-four, and was only forty-nine years of age at his death. His ancestors originally came from Medina and settled in the Concan. They married into a noble family of Bijapur, and one of their descendants received his title of nobility on entering the service of the first Nizam of Hyderabad. Ever since that time some member of the family has taken a leading part in Hyderabad politics.

(b) The Arabs are of middle size, athletic, and of a brown complexion. The common dress of the Bedouins consists of a coarse cotton shirt, over which is worn a mantle, with hood woven in one piece, either white or striped with white and brown. The wealthy wear a long gown of silk or cotton. The head-dress varies greatly.

PERSIAN.

COMPULSORY.

Paper-setters—{ Z. R. Z. SUHRAWARDY, Esq., M.A., B.L.
MAULAVI MD. MUSA, B.A.
AGA MUHAMMAD KAZIM SHIRAZI.

FIRST PAPER.

Examiners—{ KHAN BAHADUR MAULAVI MD. IBRAHIM, B.A.
MAULAVI KHALIL AHMED, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English:—

A.

و قلت فی نفسي - والله اني قد عجلت بالهلاك على نفسي وقد ولي النهار عليّ - فصرت امشي في ذلك الوادي و التفت على محل ابيت فيه - و انا خائف من تلك الحيات - و نسيت الكلي و شرابي و معاشي و اشتغلت 14

بنفسي - فلاح لي مغارة بالقرب مني - فمشيت فوجدت بابها ضيقا قد دخلتها ونظرت الى حجر كبير عند بابها فدفعته وسددت به باب تلك المغارة وانا داخلها - وقلت في نفسي قد امننت لما دخلت في هذا المكان - و ان طلع عليّ النهار اطلع و انظر ما تفعل القدرة *

B.

و ذلك الفرس ظريف الغرة مليح التحصيل حسن القوائم والصهيل - ولم يزل يحرقى حتى وقف بين يدي الشبل ابن الاسد - فلما رآه الشبل استعظمه وقال له ما جنسك ايها الوحش الجليل - وما سبب شروك في هذا البر العريض الطويل فقال يا سيد الوحوش انا فرس من جنس الخيل - وسبب شرودي هروبي من ابن آدم - فتعجب الشبل من كلام الفرس وقال لا تقل هذا الكلام - فانه عيب عليك و انت طويل غليظ وكيف تخاف من ابن آدم مع عظم جثتك سرعة جريك انا مع صغر جسمي قد عزمت على ان التقي مع ابن آدم فابطش به - و آكل لحمه و اسكن روع هذه المسكينة - و اقربها في وطننا *

2. (a) Pick out eight nouns from extract B, and give their vowel-points and opposite number. 4

(b) Give باب صيغة - مائة and مائة of the following:— 6

التقي - عزمت - تخاف - لا تقل - استعظم - وقف .

(c) Rewrite Question 1. A from فوجدت to والله اني قد عجلت . 6
فوجدت بابها ضيقا and give vowel-points. Or,

Analyse according to the rules of Arabic Grammar:—

يعطيك من طرف اللسان حلوة
ويروغ منك كما يروغ الثعلب

(d) Derive ^{معارف} معارف or ^{معارف} معارف from ^{القول} القول 4

Give vowel-points also.

3. Translate into English, adding explanatory notes where necessary:— 12

مبارک بود فال فرخ زدن
 نه بر رخ زدن بلکه شهرخ زدن
 بلندی نمودن در افکندگی
 فراهم شدن در پراگندگی
 چو شمع از درون جگر سوختن
 برون سوز شادی بر افروختن
 چو عاجز شود مرد چاره سگال
 ز بیچارگی در گریزد بفال
 کلید آرد از ریگ و سنگی بچنگ
 که آهن بسی خیزد از ریگ و سنگ
 دری را که از غیب شد ناپدید
 بجز غیب دان کس نداند کلید
 به بهبود زن فال کان سود تست
 که به باد توامل بهبود تست
 مرنج از نزاری که فربه شوی
 چو گویی کزین به شوم به شوی

4. Give the purport of the following extract, and elucidate its underlying thought:— 5

یکی سیرت نیک مردان شنو
 اگر نیک مردی و پاکیزه رو
 که شبلی ز حانوت گندم فروش
 بده برد انبان گندم بدوش

نگه کرد موری در آن غله دید
 که سرگشته از هر طرف می دوید
 ز رحمت برو شب نیازست خفت
 بماوای خود بازش آورد و گفت
 مروت نباشد که این مور ریش
 پراگنده گردانم از جای خویش

5. Explain :—

9

(a) که افتد که با جاه و تمکین شود
 چو بیذوق که ناگاه فرزین شود
 (b) بگردن قد سرکش تندخوی
 بلندیت باید بلندی مجوی
 (c) فروریخت باران رحمت ز میغ
 فروشست زنگار زنگی ز تیغ

6. Briefly narrate in Persian the story of عابد بخهل, and explain the leading idea in it. 6

Or,

Write out in your own Persian the substance of the verses composed by Sa'di.

اندر نواختن یتیمان و رحمت بر حال ایشان

7. (a) Give معنی of حاصل بالمصدر - مضارع and ماضی استمراری of the following :— 6

کشادن - زدن - گذشتن - گرفتن - گرفتن - سفتن and بستن

(b) Form words with the following suffixes, and compose sentences to illustrate the meaning of the words thus formed :— 4

ور - وار - زار - وار

8. Translate into English :—

8

سپهر را من از شادیت فارغم
 مرا چون توانی که غمگین کنی

ندارم ز تو هیچ امید و !
 اگر مهرورزی و گر کیس کنی
 نه نرگس که آرم بتو سرفرو
 بدان تا مرا تاج زرین کنی
 اگر خانه ام را چو ایوان خویش
 بخش ز رو نقره تزئین کنی
 ز بدم اگر چار بالش فهی
 ز شکل هلالم اگر زین کنی
 نخواهم به پیش تو گردن نهاد
 اگر طوقم از عقد پروین کنی

PERSIAN.

COMPULSORY.

SECOND PAPER.

Examiners— { AGA MUHAMMAD KAZIM SHIRAZI.
 MAULAVI ABDULLA ABU SYID, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English :—

10

پادشاه مرد عاقل و صاحب تجربه بود و جواهر و افر و نقود
 نا محدود داشت بعد از مشاهده اطوار فرزندان ترسید که پس
 از وی اندوختها را در معرض تلف انداخته نه بوجه احتیاج بلکه
 بباد تاراج دهند - و در حوالی آن شهر زاهدی بود پشت بر
 اسباب دنیا کرده و روی به تهیة زاد آخرت آورده *

* بیت *

سوخته تاب تجلی شده

شیفته حضرت مولی شده

بادشاه را با وی الفتی بود و به نسبت وی زیادت عقیدتی داشت - تمامی اموال را جمع فرموده بر وجهی که کسی بران اطلاع نیافت در صومعه وی دفن کرد و زاهد را وصیت فرمود که چون دولت بی وفا روی از فرزندان من برتابد و سرچشمه اقبال که چون سراب نمایشی بیش ندارد بخاک ادبار نشاند انوقت ایشانرا از گنج خبر ده *

2. Reproduce in your own Persian the story of which the above extract forms a part. 6

Or,

Give a short account of the life of the author of *Akhlāq-i Jalālī* in Persian. 6

3. Explain any two of the following lines with reference to the context:— 4

(a) آب مگو شیرۀ شاخ نبات در مرزه همشیره آب حیات

(b) از کوزه همان برون تراود که دروست

(c) غلام گفت ای خواجه طبیب میگوید اگر تو صفت وفا

پیش آری ما نیز شربت شفا ارزانی داریم

4. Translate into English:—

A.

12 مورچه میان آب افتاد و نزدیک بغرق شدن بود مرغی که بر شاخ درختی نشسته بود او را دیده و پرکاهی که در منقار داشت در آب انداخت - مورچه بر آن کاه برآمده از غرق شدن خلاص شد و بر خشکی رسید - ناگاه صیادی بر آمد و با تفنگ بقصد شکار مرغ افتاد و مورچه این را بدید و بتلافی احسان برآمد

و خود را بتعجیل نزدیک پای صیاد رسانید چون صیاد نشانه راست کرد و خواست تفنگ را خالی کند موزچه برپایش سخت گزید صیاد از جا برجست و تیر بخطا رفت و مرغ از هلاکت نجات یافت *

B.

بهرام گور هیجده ساله بود که بر تخت پادشاهی ایران 18 جلوس فرمود و مردم را براحت و تن آسائی امر نمود و چندان بلهر پرداخت که همسایگان او را غافل پنداشته طمع در ملک او نمودند و اول کسیکه بنای حمله را گذاشت خاقان چین بود که بادویست و پنجاه هزار نفر متوجه این حدود گردید - بزرگان واقعا بعرض بهرام رسانیدند ولی او همچنان در عشرت مداومت داشت - پس از آنکه خاقان نزدیک شد بهرام به ارکان دولت گفت قصد زیارت آتشکده تبریز را دارم و برادر خود نرسی را نایب السلطنه قرار داده با هفت نفر از شاهزادگان بزرگ و سیصد تن از دلیران پابراه نهاد - مردم یقین کردند که بهرام گریخت تا از تطاول عساکر خاقان بر امان باشد - پس همه یکدل شده در اطاعت و باج گذاری خاقان راضی شد *

5. Translate into Persian :—

50

A.

Now when the mother of Faraidun heard that Abtin, the father of the child, was put to death, she took up her child, who was just two months old, and sought to hide herself and her boy. At length, wearied and ill with terror and fatigue, she came to a beautiful garden, which she entered. The child cried for food, but she had none to give him, and she greatly feared that his wails would betray their retreat. But there passed by a most beautiful cow, who bowed her head to the royal infant and gave him milk in abundance. Next morning, knowing that she could not remain in that place long without being discovered, she placed the boy asleep beneath some flowering shrubs, and departed, meaning to return when she had found a safer refuge for him.

B.

At daybreak, on the 23rd, we departed from this village and entered the Jalawka desert. We passed in the course of the morning the ruins of two small towns which had lately been burnt by the Faulahs. About 12 o'clock we came to the river Wonda, which is somewhat larger than the river Kakora; but the stream was at this time rather muddy, which my guide assured me was due to the amazing shoals of fish. There were certainly large numbers of fish to be seen in all directions. We travelled the whole day through a woody and beautiful country abounding with partridges, doves, and deer, until sunset we arrived at a stream called Kasana.

LATIN.

REV. E. J. THOMSON, M.A.

Paper-setters—

REV. FATHER J. POWER.

MR. T. S. STERLING, M.A.

FIRST PAPER.

*Examiner—*J. W. HOLME, ESQ., M.A.*The figures in the margin indicate full marks.*

1. Translate into English:—

(a) Agamus igitur pingui, ut aiunt, Minerva. Qui ita se gerunt, ita vivunt, ut eorum probetur fides, integritas, aequitas, liberalitas, nec sit in eis ulla cupiditas, libido, audacia, sintque magna constantia, ut ii fuerunt, modo quos nominavi, hos viros bonos, ut habiti sunt, sic etiam appellandos putemus, quia sequantur, quantum homines possunt, naturam optimam bene vivendi ducem. Sic enim mihi perspicere videor, ita natos esse nos, ut inter omnes esset societas quaedam, major autem, ut quisque proxime accederet.

(b) Est igitur prudentis sustinere ut cursum, sic impetum benevolentiae, quo utamur quasi equis temptatis. sic amicitia ex aliqua parte periclitatis moribus amicorum. Quidam saepe in parva pecunia perspiciuntur quam sint leves, quidam autem, quos parva movere non potuit, cognoscuntur in magna. Sin erunt aliqui reperti, qui pecuniam praeferre amicitiae sordidum existiment, ubi eos inveniemus, qui honores, magistratus, imperia, potestates, opes amicitiae non anteponant, ut, cum ex altera parte proposita haec sint, ex altera ius amicitiae, non multo illa malint?

(c) Quae ubi Camillus audivit, 'non ad similem' inquit 'tui nec populum nec imperatorem scelestus ipse cum scelesto munere venisti. Nobis cum Faliscis, quae pacto fit humano societas non est; quam ingeneravit natura utrique, est eritique. Sunt et belli sicut pacis iura, iustequae ea non minus quam fortiter didicimus gerere. Arma habemus non adversus eam aetatem, cui etiam captis urbibus par-citur. Sed adversus armatos et ipsos, qui nec laesi nec laessiti a nobis castra Romana ad Veios oppugnarunt. Eos tu, quantum in te fuit, novo scelere vicisti: ego Romanis artibus, virtute opere armis, sicut Veios vincam.'

2. Write notes on the following:—tribunus plebis; ad calculos vocare; sub hasta venire; magister equitum; dictatorem dicam; auspicia repetere. 12

3. State briefly the nature and value of friendship as set forth in "De Amicitia." 8

Give a brief account of the speakers in the Dialogue.

Or,

Describe the battle of the Allia and the subsequent events that took place in Rome.

4. Translate into English, adding notes where necessary:— 20

(a) Permite divis cetera, qui simul
Stravere ventos acquore fervido
Deproeliantes, nec cupressi
Nec veteres agitantur orni.

(b) Quis desiderio sit pudor aut modus
Tam cari capitis? Praecepit lugubres
Cantus, Melpomene, cui liquidam pater
Vocem cum cithara dedit.

(c) Quo pinus ingens albaque populus
Umbram hospitalem consociare amant
Ramis? Quid obliquo laborat
Lympha fugax trepidare rivo?

(d) Auream quisquis mediocritatem
Diligit, tutus caret obsoleti
Sordibus tedi, caret invidenda
Sobrius aula.

5. Explain fully the following:— 12

- (i) Omne Proteus pecus egit altos visere montes.
- (ii) undique decerptam fronti praeponere olivam.
- (iii) animae magnae prodigum Paullum superante Poeno.
- (iv) vix illigatum te triformi Pegasus expediet chimaera.
- (v) quem Venus arbitrum dicet bibendi?
- (vi) sacro Dianae celebris die.

6. Discuss, with illustrations, Horace's attitude to religion. 8

7. Grammar and Composition. 20

(a) Write down the comparative and superlative of bene, multus, difficile, prope, parvus.

(b) Explain the syntax of the words italicized in: ne expectemus dum rogemur; quod amici genus adhibere omnino levitatis est; triduum disseruit de republica.

(c) What constructions do verbs of fearing take? Give examples.

(d) What are the different ways of expressing Purpose in Latin? Give illustrations.

(e) Translate into Latin:—

Hateful indeed is the class of men who are always casting their good offices in your teeth.

Lucius said that he hoped that the soldiers would be brave and fight well for their fatherland.

LATIN.

COMPULSORY.

SECOND PAPER.

*Examiner—W. G. FRASEB, ESQ.**Candidates are required to give their answers in their own words as far as practicable.**The figures in the margin indicate full marks.*

1. Translate into Latin :—

10

- (a) There are some who think that courage is inborn.
 (b) It is universally agreed that virtue should be preferred to wealth.
 (c) He says that he will go to his house at Calcutta.
 (d) We generally follow those pursuits which most please us.

2. Translate into Latin :—

30

You require more frequent letters from me: let us discuss accounts: you will not be the debtor. We had agreed that yours were to be the first: you would write, I would answer (*rescribere*). But I will not be hard. I know you are entirely trustworthy: hence I will make an advance (*dabo*) beforehand, and I will not do what our learned friend Cicero orders Atticus to do, to write although he might have no matter to write about.

3. Put into English :—

10

(a) Habere quaestui rem publicam non modo turpe est, sed sceleratum etiam et nefarium.

(b) Caesar praesidiis in montibus dispositis omni ad Hiberum intercluso itinere, quam proxime potest hostium castris, castra communit.

(c) Nolite putare, quemadmodum in fabulis saepe numero videtis, eos, qui aliquid impie commiserint, agitari et perterrerī Furiarum taedis ardentibus; suum quemque scelus agitāt.

4. Render into English :—

25

(a) Hannibal uno loco se tenebat, in castello quod ei a rege datum erat muneri, idque sic aedificarat, ut in omnibus partibus aedificii exitus haberet, scilicet veritus ne usuveniret, quod accidit. Hue cum legati Romanorum venissent ac multitudine domum eius circumdedit, puer ab ianua prospiciens Hannibali dixit plures praeter consuetudinem armatos apparere. Qui imperavit ei, ut omnes fores aedificii circumiret ac propere sibi nuntiaret, num eodem modo undique obsideretur. Puer cum celeriter, quid vidiasset, renuntiasset omnesque exitus occupatos ostendisset, sensit id non fortuito factum, sed se peti neque sibi diutius vitam esse retinendam. Quam ne alieno arbitrio dimitteret, memor pristinorum virtutum venenum, quod semper secum habere consuevit, sumpsit. Sic vir fortissimus anno quievit septuagesimo.

*Either (b)**Circe.*

25

Solumque suis caruisse figura
 vidimus Eurylochum: solus data pocula fugit.
 quae nisi vitasset, pecoris pars una manerem
 nunc quoque saetigeri, nec tantae cladis ab illo
 certior ad Circen ultor venisset Ulixes.

pacifer huic dederat florem Cyllenius album,
moly vocant superi: nigra radice tenetur.
tutus eo monitisque simul caelestibus intrat
ille domum Circes, et ad insidiosa vocatus
pocula, conantem virga mulcere capillos
reppulit, et stricto pavidam deterruit ense.

Or (c)

Caesar's Vision at the Rubicon.

25

Iam gelidas Caesar cursu superaverat Alpes,
ingentesque animo motus bellumque futurum
ceperat. ut ventum est parvi Rubiconis ad undas,
ingens visa duci patriae trepidantis imago,
clara per obscuram vultu maestissima noctem,
turrigero canos effundens vertice crines,
Caesarie lacera, nudisque adstare lacertis,
et gemitu permixta loqui; 'Quo tenditis ultra?
quo fertis mea signa, viri? si iure venitis,
si cives, huc usque licet.' tunc perculit horror
membra ducis, riguere comae, gressumque coercens
languor in extrema tenuit vestigia ripa.
mox ait: 'En adsum victor terraque marique
Caesar, ubique tuus, liceat modo, nunc quoque miles.'

FRENCH.

Paper setters— { REV. FATHER E. FRANCOU, S.J.
G. LE FAUCHEUR, ESQ.

FIRST PAPER.

Examiner—REV. FATHER E. FRANCOU, S.J.

Candidates are required to give their answers in their own words
as far as practicable.

The figures in the margin indicate full marks.

1. Translate three of the five following extracts:—

12

(a) *Harpagon*. Un peu de patience; ne vous alarmez point. Je sais ce qu'il faut à tous deux, et vous n'aurez, ni l'un ni l'autre, aucun lieu de vous plaindre de tout ce que je prétends faire; et, pour commencer par un bout (à *Cléante*), avez-vous vu, dites-moi, une jeune personne appelée Mariane, qui ne loge pas loin d'ici?—*Cléante*. Oui, mon père.—*Harp*. Et vous?—*Elise*. J'en ai oui parler.—*Harp*. Comment, mon fils, trouvez-vous cette fille?—*Clé*. Une charmante personne.—*Harp*. Sa physionomie?—*Clé*. Tout honnête et pleine d'esprit.—*Harp*. Son air et sa manière?—*Clé*. Admirables, sans doute. *Harp*.—Ne croyez-vous pas qu'une fille comme cela mériterait qu'on songe à elle?—*Clé*. Oui, mon père.

(b) *Harpagon*. Il faudra voir cela. Mais, Frosine, il y a encore une chose qui m'inquiète. La fille est jeune, comme tu vois, et les jeunes gens, d'ordinaire, n'aiment que leurs semblables, ne cherchent que leur compagnie; j'ai peur qu'un homme de mon âge ne soit pas

de son goût, et que cela ne vienne à produire chez moi certains petits désordres qui ne m'accommoderaient pas.—*Frosine*. Ah! que vous la connaissez mal! C'est encore une particularité que j'avais à vous dire. Elle a une aversion épouvantable pour tous les jeunes gens, et n'a de l'amour que pour les vieillards.

(c) *Harpagon, à Mariane*. Ne vous offensez pas, ma belle, si je viens à vous avec des lunettes. Ye sais que vos appas frappent assez les yeux, sont assez visibles d'eux-mêmes, et qu'il n'est pas besoin de lunettes pour les apercevoir: mais, enfin, c'est avec des lunettes qu'on observe les astres; et je maintiens et garantis que vous êtes un astre, le plus bel astre qui soit dans le pays des astres. *Frosine*, elle ne répond mot, et ne me témoigne, ce me semble, aucune joie de me voir.—*Fros*. C'est qu'elle est encore toute surprise; et puis, les filles ont toujours honte à témoigner d'abord ce qu'elles ont dans l'âme.—*Har.*, (à *Frosine*) Tu as raison (à *Mariane*) Voilà, belle mignonne, ma fille qui vient vous saluer

(d) *Harpagon, criant au voleur dès le jardin*. Au voleur! au voleur! à l'assassin! au meurtrier! Justice, juste ciel! je suis perdu, je suis assassiné; on m'a coupé la gorge: on m'a dérobé mon argent. Qui peut-ce être? Qu'est-il devenu? Où est-il? Où se cache-t-il? Que ferai-je pour le retrouver? Où courir? Où ne pas courir? N'est-il point là? N'est-il point ici? Qui est-ce? Arrête (*à lui-même, se prenant par le bras*). Rends-moi mon argent, coquin... Ah! C'est moi! Mon esprit est troublé et j'ignore où je suis, qui je suis, et ce que je fais. Hélas! mon pauvre argent!

(e) *Harpagon*. Ah! fille scélérate! fille indigne d'un père comme moi! C'est ainsi que tu pratiques les leçons que je t'ai données? Tu te laisses prendre d'amour pour un voleur infame, et tu lui engages ta foi sans mon consentement! Mais vous serez trompés l'un et l'autre. (*À Elise*) Quatre bonnes murailles me répondront de ta conduite; (*À Valère*) et une bonne potence me fera raison de ton audace. *Valère*. Ce ne sera point votre passion qui jugera l'affaire, et l'on m'écouterà au moins avant que de me condamner.—*Har*. Je me suis abusé de dire une potence; et tu seras roué vif.

2. (a) Give the principal parts of:—savoir, plaindre, ouïr, dire, voir, pouvoir. 6

(b) Parse fully the twelve words italicized in Question 1 a, b, c. 6

(c) Account for the subjunctive mood *soit* in 1 b. 2

3. Translate three out of the five following extracts:— 12

(a) De bon matin je fus debout, et les deux coudes sur l'étable, je me mis à regarder tous ces gens défilér: ces garçons en blouse, ces pauvres vieux en bonnet de coton et petite veste, ces vieilles en casquin et jupe de laine, le dos courbé, la figure défaits le bâton ou le parapluie sous le bras. Ils arrivaient par familles. M. le sous-préfet de Sarrebourg, en collet d'argent, et son secrétaire, descendus la veille au Boeuf-rouge, regardaient aussi par la fenêtre.

(b) Il tombait une forte rosée; chacun se dépêchait d'essuyer son fusil, de rouler sa capote et de la boucher sur son sac. On s'aidait l'un l'autre, on se mettait en rang. Il pouvait être alors quatre heures du matin. Tout était gris à cause du brouillard qui montait de la rivière. Déjà deux bataillons passaient sur les ponts, les soldats à la file, les officiers et le drapeau au milieu. Cela produisait un roulement sourd. Les canons et les caissons passaient ensuite.

(c) Je ne pouvais plus bouger et je souffrais beaucoup; mon bras droit seul remuait encore. Pourtant je parvins à me dresser sur le coude, et je vis les morts entassés jusqu'au fond de la ruelle. La lune donnait dessus; ils étaient blancs comme la neige: les uns la

bouche et les yeux tout grands ouverts; les autres la face contre terre, la giberne et le sac au dos, la main cramponnée au fusil. Je voyais cela d'une façon effrayante, mes dents en claquaient d'épouvante.

(d) Le temps s'était mis à la pluie à la fin d'août; l'eau tombait à verse. Je ne sortais plus de la caserne. Souvent, assis sur mon lit-regardant par la fenêtre l'Elster bouillonner sous l'ondée, et les arbres des petites îles se pencher sous les grands coups de vent—je pensais: "Pauvres soldats... pauvres camarades!... que faites-vous à cette heure?... où êtes-vous?" Sur la grande route peut-être, au milieu des champs. Et malgré mon chagrin de vivre là, je me trouvais moins à plaindre qu'eux.

(e) A la fin, prenant courage, j'appelai tout doucement: "Catherine!" Alors elle, tournant la tête, s'écria: "Joseph, ... tu me reconnais?—Oui," lui dis-je en étendant la main. Elle s'approcha toute tremblante, et je l'embrassai longtemps. Nous sanglotions ensemble. Et comme le canon se remettait à gronder tout à coup, cela me serra la coeur. "Qu'est ce que j'entends, Catherine" demandai-je.—"C'est le canon de Phalsbourg," fit-elle en m'embrassant plus fort.—Le canon?—Oui, la ville est assiégée. ...—Phalsbourg?... Les ennemis sont en France.

4. (a) Under what circumstances, and by whom, was 'L'histoire d'un conscrit' written? 6

(b) Write the feminine of:—abbé, dieu, duc, chanteur; the masculine of:—épouse, louve, jument, servante; the plural of:—voie, voix, chapeau, carnaval, canal, vitrail. 4

(c) Mention two plural forms for *two* of the following nouns, with special meanings:—aieul, ciel, oeil, travail. 4

(d) What is generally the place of personal pronouns in French? Mention three exceptions to the rule, giving illustrations. 6

(e) Name the French primitive tenses, and mention the forms derived from two of them. 6

(f) Conjugate the present conditional of *aimer* in the interrogative form 5

(g) Conjugate the present Indicative of *valoir*. 5

(h) Contrast the use of the definite article in English and French. You may, instead, give some rules, with examples, which embody the use and the omission of the article in French. 6

5. Translate into Idiomatic French the following sentences:— 30

Autumn is the season of fruits. Here is some money for you. Ripe fruit is wholesome. She is my sister. It is the gardener who has planted this tree. Her uncle is not so old as her aunt. I have a mind to go over to France. Are not the windows shut? Yesterday I was fifteen years old. Don't speak now, listen to me. How long have you been in this town? Who has broken this window-pane? When you have done speaking, it will be my turn. Allow me to stay a little longer. He regrets having neglected his duties.

FRENCH.

SECOND PAPER.

Examiner—T. S. STERLING, Esq. M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English *seven* of the nine following extracts, leaving out one in Poetry and one in Prose :— 70

- (a) Le bon Etienne, Son manteau jaune
Que Dieu soutienne Coûtait par aune
Fut un grand roi, Un sou tournoi :
Un bien digne homme, Toi, petit page
Plus économe De bas étage,
Que toi ni moi, Qui fais tapage,
Le vaux-tu, toi ?

(Adapted from *Shakespeare's Othello*, II, 3, by A. de Vigny).

- (b) Le ciel est noir, la terre est blanche :
Cloches, carillonnez gaîment ;
Jésus est né, la Vierge penche
Sur lui son visage charmant.
Il tremble sur la paille fraîche,
Ce cher petit enfant Jésus ;
Et pour l'échauffer dans sa crèche,
L'âne et le boeuf soufflent dessus.

(Th. Gautier).

- (c) Quand le ciel et mon heure Je défends qu'on me rompe
Jugeront que je meure, Le marbre, pour la rompre
Ravi du beau séjour De vouloir mon tombeau
Du commun jour, Bâtir plus beau.

Mais bien je veux qu'un arbre
M'ombrage en lieu d'un marbre,
Arbre qui soit couvert
Toujours de vert.

(Ronsard's Testament).

- (d) A complex character.

Il était très-joyeux, et pourtant très-maussade ;
Détestable voisin,—excellent camarade ;
Extrêmement futile,—et pourtant très posé ;
Indignement naïf,—et pourtant très blasé ;
Horriblement sincère,—et pourtant très rusé.

(Alfred de Musset).

(e) Un Français et un Anglais se disputaient sur le mérite respectif de leur nation. La discussion dura longtemps, et chacun garda son opinion, comme bien l'on pense. Cependant le Français, voulant terminer d'une manière polie une conversation qui allait tourner à l'aigre, s'écria : " Du reste, monsieur, si je n'étais pas Français, je voudrais être Anglais."—" Et moi, monsieur," dit l'autre, " si je n'étais pas Anglais, je voudrais être Anglais."

(f) Saint Martin qui servait comme soldat dans l'armée de l'empereur Julien, eut la vision qui le détermina à embrasser le christianisme. Après qu'il eut reçu le baptême, il servit encore deux ans, puis il demanda son congé à Julien. L'empereur lui répondit: "Un brave soldat ne sort pas de l'armée la veille d'une bataille."—"Je t'ai fidèlement servi pendant vingt ans," répondit Martin, "trouve bon que maintenant je serve Dieu."

(g) Un petit écolier s'en allait à l'école. Il n'y allait pas gaiement. Comme il aurait béni celui qui lui aurait dit: "Va, retourne chez toi, la maison d'école a brûlé cette nuit. Voici des vacances sur lesquelles tu ne comptais pas." L'enfant va toujours, mais le plus lentement possible. Il rencontre une abeille: "Gentille abeille je vais à l'école, mais rien ne presse, jouons un peu ensemble."—"Mon enfant," répond l'abeille, "je n'ai pas le temps de m'amuser. Regarde, tout fleurit, j'ai mes provisions d'hiver à faire. . ."

(h) Un lion devenu vieux faisait le malade, et, en conséquence, recevait les visites d'un grand nombre d'animaux qu'il saisissait et dévorait. Le renard seul ne s'y rendait pas. Le lion le fit inviter avec bien des compliments. Le renard répondit qu'il était extrêmement flatté de son invitation, mais qu'il lui était impossible de se présenter en personne au palais. "Car," ajouta-t-il, "on voit beaucoup de traces qui y vont, mais aucune qui en revienne."

(i) Un homme menait à la ville, pour les vendre, un mouton, une chèvre et un porc. Le mouton et la chèvre marchaient bien, tandis que le porc résistait, s'arrêtait sur place ou cherchait à s'échapper à droite ou à gauche. Tantôt l'homme le poussait devant lui, tantôt il le traînait derrière lui. Enfin il s'écria: "A-t-on jamais vu un plus méchant animal que toi?"—"Chacun pour soi," répondit le porc, "tout va bien pour le mouton et la chèvre, mais pour moi, ma place sera à la boucherie."

2. Translate into Idiomatic French *three* out of the four following 30 passages:—

(a) Two travellers who had gone astray in the night perceived some lights that were fitting in the distance. Not knowing that these were will-o'-the-wisps (*foufollet*), they took into their heads to follow them and fell into a morass. "Accursed lights," exclaimed they, "you have led our steps astray!"—"We have not advised you to come here; why did you take it into your heads to follow us?" replied the Jack o' lanterns, and vanished.

(b) Two old men were returning home with a load of wood. They were tired; and half-way they found the burden so heavy that they threw it down and called Death to relieve them. "Here I am" said Death to them. "What can I do for you?" At the sight of Death the two unfortunate men were frightened and said: "We have called you to help us to reload this heavy burden."

(c) One evening I heard a knock at the door. "Who is there?" I asked, without looking up.—"Let me come in, please!"—"Well, come in! What do you want?"—"I want your money!" replied the newcomer.—"There is no money in my pockets; don't disturb my papers, if you please. If I had any money, I should give you some, but the fact is, I have not wherewith to pay for my dinner."

(d) One morning, Dean Swift called his man-servant and asked him why he had not cleaned his boots. "That is quite useless," said the latter, "before an hour's march they will be covered with mud."—"Well and good, get ready to start."—"But I have not yet had my breakfast."—"It is useless to breakfast, for before an hour's march you will be hungry again."

FIRST PAPER.

Observe the alternatives in questions 1 and 6.

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

12

[illegible]

- (2) What is the root of لَا تُؤْمِنُ and of لَا تُؤْمِنُ, and the meaning of each root?
- (3) Parse the words underlined in the passage,

OR

Write out the perfect Peal of 𐎧𐎠𐎡𐎹 and mention some peculiarities of this class of verbs.

10

[illegible]

[illegible]

(c) Parse the following forms: ܡܠܟܐܐ, ܡܠܟܐ, ܡܠܟܐܐ.

6. To what class of verbs does ܡܠܟܐ (to be firm) belong, and what are the peculiarities of such verbs?

OR

Attach pronominal suffixes to 3rd plur. masc. Pael of ܡܠܟܐ.

7. Translate into Syriac:—

40

- (a) Hear my voice, O God, in my prayer; preserve my life from fear of the enemy.
- (b) And when he had consulted with the people he appointed singers unto the Lord to praise the beauty of holiness as they went out before the army and to say, Praise the Lord, for his mercy endureth for ever.

One night I stopped fatigued at the foot of a hillock. A feeble old man came up and said, "Why art thou lying down? This is no place for sleeping." I replied, "How shall I go on for I have not the legs to move?" He answered, "Hast thou not heard that the sages say, It is better to proceed slowly and rest than to run and break down."

SECOND PAPER.

Observe the alternative in question 2.

Candidates are required to give their answers in their own words as far as practicable.

1. (1) Translate:—

መሪዎች ማስታወሻ፡ የአካል ጤና እና የሥነ ምግባር አማካኝነት
የተዘጋጀው የሰው ሕይወት ድንበር በሀገሪቱ ተለያዩ ክፍሎች
በተካሄደው የቴሌቪዥን ስልጠና መሳተፍ ይቻላል።

(2) Remark on the words underlined.

(3) **Mention some of the edicts regarding the ordination of High Priests.**

2. (1) Translate:—

الحكم في معاصيهم؛ ومن بعد ذلك هم في النار، فمن بعد ذلك هم في النار، فمن بعد ذلك هم في النار.

[illegible]

30

They said to Alexander of Rum, "How didst thou conquer the eastern and western worlds, when former kings surpassed thee in treasures, and territory, and long life, and armies, and yet did not obtain such victories?" He replied, "By the aid of the Most High God. Whenever I subdued a country I did not oppress its inhabitants, and I never spoke disparagingly of its kings.

- (b) I find no fault in this man of all the things of which ye accuse him. I will therefore loose him.
- (c) And the King said unto his servants, Know ye not that there is a prince and a great man fallen this day in Israel?

HISTORY.

Paper-setters— { M. N. BASU, ESQ., M.A.
E F. OATEN, ESQ., M.A.
BABU RAMESCHANDRA MAJUMDAR, M.A.

FIRST PAPER.

Head Examiner—MR. M. N. BASU, M.A.

Examiners— { BABU AKSHAYKUMAR SARKAR, M.A.
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BABU BIJAYCHANDRA SENGUPTA, M.A.
BABU HEMCHANDRA RAYCHAUDHURI, M.A.
MR. S. M. BOSE, M.A., LL.B.
MR. R. KHOSLA, M.A.
BABU SUBIMALCHANDRA SARKAR, M.A.

HISTORY OF ENGLAND.

Candidates are required to give their answers in their own words as far as practicable.

The questions carry equal marks.

Only EIGHT questions to be answered, not more than TWO being taken from EACH of the groups.

GROUP A.

1. Sketch the history of the West-Saxon overlordship up to the death of Alfred.
2. Describe the conquest and rule of England by the Danes from the time of Athelstan.
3. Give some account of the causes and events of the Civil War in England during the reign of Stephen. How did Henry II put an end to the disorders of the reign?

GROUP B.

4. To what extent did Henry II and Edward I contribute towards the development of the administrative and judicial machinery of England?
5. Trace the changes in the relationship existing between England and Scotland in the reigns of the first three Edwards.
6. Describe briefly the foreign and ecclesiastical policy of Henry VIII.

GROUP C.

7. What were the grounds of dispute between Parliament and (a) Charles I and (b) James II?
8. What was the foreign policy of England in William III's reign?
9. What was the part played by England in the Napoleonic War between 1801 and 1815?

GROUP D.

10. Give some account of the reforms of the Grey and Melbourne ministries.

11. Sketch the Irish policy of Gladstone. How did it affect the Party System in England?

12. What is meant by the Near Eastern Question? What was the importance in regard to that question of the Treaty of Paris (1856) and the Treaty of Berlin (1878)?

HISTORY.

SECOND PAPER.

Head Examiner—MR. M. N. BASU, M.A.

<i>Examiners</i> —	{	BABU DHARMADAS BANERJEE, M.A., B.L.
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		BABU PRASANNAKUMAR BASU, M.A.
		BABU BINAYKUMAR SEN, M.A.
		BABU RAKHALDAS BANERJEE, M.A.
		MR. KIRANSANKAR RAY, M.A.

HISTORY OF GREECE AND ROME.

Candidates are required to give their answers in their own words as far as practicable.

The questions carry equal marks.

EIGHT questions only are to be attempted, two from each of the four groups, A, B, C, and D.

A.

1. What light do the Homeric poems throw upon the political and social organization of the early Greeks?

2. Indicate the characteristic differences between the constitutions of Athens and Sparta.

3. Describe accurately the battle of Thermopylae, adding a sketch plan if possible. Estimate the real importance in the Graeco-Persian struggle of the battles of Marathon and Salamis.

B.

4. Write sketches of the life and character of (a) Nicias, (b) Cleon, referring to the rivalry of the two men in Athenian politics.

5. Sketch the career of Alexander the Great, and illustrate the extent of his empire by a sketch-map.

6. Write short notes on any *five* of the following:—(a) Confederacy of Delos; (b) Ostracism; (c) the Achaean League; (d) the Retreat of the Ten Thousand; (e) the Licinian Rogations; (f) the Tribuneship; (g) the Catilinarian Conspiracy; (h) the Battle of Pharsalus.

C.

7. Indicate the main steps by which the supremacy of Rome was established in Italy.

8. Write a narrative of Hannibal's career in Italy, taking particular care to exhibit his greatness as a general. To what was his ultimate defeat really due?

9. Sketch the career and character of (a) Tiberius Gracchus, and (b) Marcus Porcius Cato.

D.

10. What was the essential character of Sulla's work? Append a character-sketch of the man.

11. 'The system of imperial government, as it was instituted by Octavian, may be defined as an absolute government disguised by the form of a Commonwealth.' Elucidate this statement.

12. Briefly review the circumstances which led to the decline of the Roman Empire up to A.D. 476.

LOGIC.

Paper-setters—{ BABU ADHARCHANDRA MUKERJEE, M.A.
BABU AMBIKACHARAN MITRA, M.A.
J. R. BANERJEE, ESQ., M.A.

FIRST PAPER.

Head Examiner—BABU AMBIKACHARAN MITRA, M.A.

Examiners—{ BABU CHARUCHANDRA SINHA, M.A.
BABU SYAMLAL LAHA, M.A.
BABU SURESCHANDRA DATTA, M.A.
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BABU SURENDRALAL KUNDU, M.A.
BABU KUMUDBANDHU CHAKRABARTI, M.A.
BABU JITENDRANATH DASGUPTA, M.A.
BABU HARIDAS BHATTACHARYYA, M.A.
BABU BIRENDRACHANDRA MUKERJEE, M.A.
BABU DHIRENDRANATH GHOSHAI, M.A.
BABU NALINIKUMAR DATTA, M.A.
BABU KALIDAS SEN, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. (a) Explain and illustrate the distinction between Immediate and Mediate Knowledge. Has Logic anything to do with Immediate Knowledge? 10

(b) What do you understand by Formal Logic? Enunciate the Principle of Identity and state its significance. 10

2. What is a Term? What do you understand by the Denotation and the Connotation of a term? Are proper names non-connotative? Fully discuss this question, noticing different views and giving your own with reasons to support it. 14

Or,

What are the various classes of terms? Explain each of them, and give an example of each.

3. (i) Point out the quality and quantity of each of the following propositions:— 8

(a) Only ignorant persons hold such opinions.

(b) Few persons are proof against temptation.

(c) Phosphorus does not dissolve in water.

(d) Many are the deserving men who are unfortunate.

(ii) What is meant by the conversion and the obversion of a proposition? Has (b) above any converse? Give reasons for your answer. Give the obverse of (a) and (d) above. 9

4. Give the Predicative and Denotative views of the Import of Propositions, and illustrate each by an example. What do you think to be the correct view of the Import of Propositions, and why? 10

Or,

Explain and illustrate *differentia*, *property*, and *accident*. Distinguish between a separable and an inseparable accident, and give an example of each.

5. (a) Prove that in the second figure the major premiss must be universal. 6

(b) Given that the major premiss of a valid syllogism is affirmative, and that the major term is distributed both in premiss and conclusion, while the minor term is undistributed in both, determine the syllogism. 6

6. What is Reduction? Distinguish between Direct and Indirect Reduction. Reduce the following argument to the first figure both by the Direct and the Indirect Method:— 15

No stars are plants.

All plants are organic things.

∴ Some organic things are not stars.

Or,

What do you understand by a prosyllogism, an episyllogism, and an epicheirema? Give an example of each. Distinguish between an Aristotelian and a Goelenian Sorites, and prove that in the first figure only the first premise can be particular in the Aristotelian Sorites.

7. Test *any three* of the following arguments:— 12

(a) If a man is educated, he does not want to work with his hands; consequently, if education is universal, industry will cease.

(b) None but the wise are good, and none but the good are happy; therefore none but the wise are happy.

(c) We have no right to treat heat as a substance, for it may be transformed into something which is certainly not a substance, namely mechanical work.

(d) Learned men sometimes become mad; but, as he is not learned, there is no danger of his sanity.

(e) Men who live in society are liable to go wrong morally, therefore to be virtuous one must renounce society.

LOGIC.

SECOND PAPER.

Head Examiner—BABU AMBIKACHARAN MITRA, M.A.

<i>Examiners</i> —	{	BABU RAJANIKANTA DATTA, M.A.
		BABU JOGINDRANATH MITRA, M.A.
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		BABU SITARAM BANERJEE, M.A.
		BABU PHANIBHUSHAN CHATTERJEE, M.A., B.L.
		BABU DEBENDRANATH SEN, M.A.
		BABU KALIDHAN CHATTERJEE, M.A.
		BABU PURNACHANDRA SEN, M.A.
		BABU KSHIRODCHANDRA GUPTA, M.A.
		MR. ROY ROLAND THOMAS, M.A.
		BABU BIBHUTIBHUSHAN MITRA, M.A.
		BABU SASIBHUSHAN BASU, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Determine the character of Inference, and show how it is illustrated in Induction. 14

Or,

Distinguish between Perfect and Imperfect Induction, and estimate the importance of the distinction.

2. Exhibit the character of Scientific Induction. How does it differ from Induction by Simple Enumeration? 14

Or,

Investigate the grounds and conditions of Inductive Inference.

3. Define precisely what is meant by the Cause of an event. How is a 'Cause' distinguished from 'Conditions'? 14

Or,

What do you understand by the 'Plurality of Causes' and the 'Mutuality of Cause and Effect'? Illustrate your answer by examples.

4. When is it necessary to employ the Method of Concomitant Variations? Explain and illustrate the Method, indicating its different forms. 14

5. When is the Deductive Method employed in inductive investigation? Distinguish between the Direct and Inverse Forms of this Method. 14

Or,

Distinguish between Analogy and Induction. How is the strength of analogical argument measured?

6. Distinguish between Definition and Description. Indicate the Formal and Material Conditions of Definition. 14

Or,

Distinguish between Division and Classification. Is Classification based on Type or on Definition ?

7. Test *any four* of the following arguments :—

16

(a) The mind must be a function of the brain, since any serious injury to the brain is always followed by the loss of consciousness.

(b) The flood was evidently due to the wrath of the goddess, since it began immediately after she had been slighted, and it subsided after propitiatory sacrifices.

(c) 'Steel, when brought to white heat in the fire, must be plunged into cold water in order to obtain the requisite temper. Similarly the human body after the steam-bath, on being cooled down, becomes strong and hardy.'

(d) The human soul must be diffused over the whole body, because it animates every part.

(e) Education is clearly the source of all discontent, since the educated not getting suitable employment are dissatisfied with their condition in life.

(f) 'What would our ancestors say to this, Sir ? How does this measure tally with their institutions ? How does it agree with their experience ? Are we to put the wisdom of yesterday in competition with the wisdom of centuries ? (*Hear ! hear !*) Is beardless youth to show no respect for the decisions of mature age ? (*Loud cries of hear ! hear !*) If this measure be right, would it have been reserved for these modern and degenerate times ?'

MATHEMATICS.

Paper-setters— $\left\{ \begin{array}{l} \text{HON'BLE JUSTICE SIR ASUTOSH MUKERJEE,} \\ \text{KT., C.S.I., M.A., D.L.} \\ \text{DR. D. N. MALLIK, B.A., Sc.D., F.R.S.E.} \\ \text{BABU NARENDRAKUMAR MAJUMDAR, M.A.} \end{array} \right.$

FIRST PAPER.

Head Examiner—DR. D. N. MALLIK, B.A., Sc.D., F.R.S.E.

Examiners— $\left\{ \begin{array}{l} \text{BABU CHINTAHARAN RAY, M.A.} \\ \text{BABU MANINDRANATH SET, M.Sc.} \\ \text{MR. B. C. GHOSH, M.A., M.B., B.C.} \\ \text{BABU SURENDRANATH CHATTERJEE, M.A.} \\ \text{BABU BAIKUNTHACHANDRA RAY, M.A.} \\ \text{BABU NARENDRAKUMAR MAJUMDAR, M.A.} \\ \text{BABU SURENDRAMOHAN GANGULI, M.Sc.} \\ \text{MR. G. S. MILL, M.A., B.Sc.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Select FOUR questions from Group A and THREE from Group B.

GROUP A.

1. (1) Find the condition that the roots of $ax^2 + 2bx + c = 0$ are real. 6
- (2) If p, q be the roots of $21x^2 - x - 2 = 0$, find the equation whose roots are pq and $p^2 + q^2$. 7
2. Solve:
 - (1) $x + y = 5$, $x^2 + y^2 = 8xy$; 6
 - (2) $x^3 - y^3 = 218$, $x - y = 2$. 7
3. If A varies as B when C is constant, and if A varies as C when B is constant, prove that A varies as BC when both B and C vary. 13
- Or,
- If x vary directly as the square of y , and inversely as the cube root of z ; and if $x = 2$ when $y = 4$ and $z = 8$; find the value of y when $x = 3$ and $z = 27$. 13
4. (1) Find the number of combinations of n different things taken r at a time. 7
- (2) Show that this number is equal to the number of combinations of n different things taken $(n - r)$ at a time. 6

5. Write down the expansion of $(1+x)^{2n}$, where n is a positive integer, and show that the sum of the coefficients of the odd terms is 2^{2n-1} . 13

6. (1) Define a logarithm, and prove that 7

$$\log_a (m^n) = n \log_a m.$$

(2) Prove that 6

$$\frac{1}{e} = \frac{1}{1 \cdot 2} - \frac{1}{1 \cdot 3} + \frac{1}{1 \cdot 4} - \frac{1}{1 \cdot 5} + \frac{1}{1 \cdot 6} - \dots$$

7. (1) Prove that $\cos(A-B) = \cos A \cos B + \sin A \sin B$, where A and B are each less than 90° . 7

(2) Prove that 6

$$\cos(120^\circ - A) + \cos A + \cos(120^\circ + A) = 0.$$

8. Draw the graph of $y = \tan x$, from $x=0$ to $x=\pi$. 13

9. If $B=45^\circ$, $C=10^\circ$, $a=200$ ft., find b , having given 13

$$\log 2 = 0.3010300, \log 1726.4 = 3.2371414,$$

$$L \sin 55^\circ = 9.9133645, \log 1726.5 = 3.2371666.$$

10. Prove that:

$$(1) c = b \cos A + a \cos B; \quad 6$$

$$(2) \sin \frac{1}{2}C = \sqrt{\frac{(s-a)(s-b)}{ab}}. \quad 7$$

GROUP B.

11. (1) The tangents at the extremities of a focal chord of a parabola intersect at right angles on the directrix. 9

(2) Show that the circle described on any focal chord as diameter touches the directrix. 7

12. (1) Define a normal, and show that the normal at any point of a parabola makes equal angles with the focal distance and the axis. 9

(2) A chord PQ of a parabola is normal to the curve at P , and subtends a right angle at S , the focus; show that $SQ=2SP$. 7

13. (1) The sum of the focal distances of any point on an ellipse is constant and equal to the major axis. 9

(2) The major axis is the longest chord that can be drawn in the ellipse. 7

14. (1) The portion of the tangent to an ellipse at any point intercepted between that point and the directrix subtends a right angle at the focus, and conversely. 9

(2) If through any point P of an ellipse an ordinate QPN be drawn, meeting the tangent at the end of the latus rectum in Q , prove that $QN=SP$. 7

15. (1) If a straight line outside a given plane is parallel to any straight line drawn on the plane, it is also parallel to the plane itself. 9

(2) A straight line PQ is parallel to each of two intersecting planes; show that PQ is also parallel to their line of section. 7

16. (1) If two intersecting planes are each perpendicular to a third plane, their line of section is also perpendicular to that plane. 9

(2) Through any straight line a plane can be passed perpendicular to a given plane. 7

MATHEMATICS.

SECOND PAPER.

Head Examiner—DR. D. N. MALLIK, B.A., Sc.D., F.R.S.E.

Examiners— $\left\{ \begin{array}{l} \text{BABU MANMATHANATH RAY, M.A.} \\ \text{BABU NARESCHANDRA GHOSH, M.A.} \\ \text{BABU BANKIMDAS BANERJEE, M.A.} \\ \text{BABU HEMCHANDRA SENGUPTA, M.A.} \\ \text{BABU SARADAKANTA GANGULI, M.A.} \\ \text{BABU SITESHCHANDRA KAR, M.A.} \\ \text{BABU SUDHANSUKUMAR BANERJEE, M.Sc.} \\ \text{BABU NAGENDRANATH SWARNAKAR, M.A.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Two marks are reserved for neatness.

Only SEVEN questions to be attempted.

1. (1) Define velocity. Find graphically the space described when the velocity is constant.

(2) A particle moves through 13 ft., 32.5 ft., 52 ft. in 2, 5, 8 seconds respectively. Is this consistent with uniform motion? Give your reason.

2. (1) Define relative velocity.

(2) Raindrops are falling vertically with a velocity of 3 miles per hour. If a man is walking at the rate of 8 miles an hour, find the direction in which the drops will appear to come. Represent the motion graphically.

3. (1) What is acceleration? Prove the parallelogram law of acceleration, assuming the parallelogram law of velocity.

(2) Three accelerations 3, 5, 6 have a zero resultant; represent them on a diagram.

4. (1) Prove graphically or otherwise the formula

$$s = ut + \frac{1}{2}at^2,$$

where s is the space described in t seconds under a constant acceleration a with an initial velocity u .

(2) Two particles are projected upwards, one with a velocity of 64 ft. per second and the other with a velocity of 32 ft. per second. Find the distance between their highest points.

5. (1) Explain how masses and forces are measured.

(2) A body of mass 25 grammes is acted upon by a force of 200 dynes. How long will it take to move through 4 cm. (from rest)?

6. (1) Two particles of masses m and M are connected by a light inextensible string passing over a smooth, fixed pulley, m moving over a smooth horizontal plane, and M vertically. Determine the motion by a direct application of the second law of motion.

(2) If $M = 3m$, find the space described in 2 seconds from rest.

7. (1) A particle is projected with a velocity of 10 ft. per second at an inclination of 45° to the vertical. Find, by a graphical construction, its position at the end of 2 seconds.

(2) Find also the direction and magnitude of the velocity at that point, and explain how the construction follows from the laws of motion.

8. (1) Define *coefficient of restitution*.

(2) A glass marble (coefficient of restitution = e) drops from a height h on a horizontal floor. Find the height to which it rebounds. Hence show how the coefficient of restitution may be determined experimentally.

9. (1) Enunciate and prove the principle of the parallelogram of forces.

(2) P , Q are two forces of which the resultant R is perpendicular to P . Find Q , if $P=10$ dynes and $R=25$ dynes, by a graphical construction or otherwise.

10. (1) Define *centre of mass* and *centre of gravity*.

Explain a method of determining the centre of gravity of a rectangle.

(2) A body consists of a square and an isosceles triangle on the same base. Find the centre of gravity of the body, if the height of the triangle is equal to the base.

11. (1) Find the condition of equilibrium of any number of forces in a plane that meet at a point.

(2) A particle of mass 15 pounds is suspended by two strings of lengths 3 ft. and 4 ft. respectively, attached to two points in the same horizontal line 5 ft. apart. Find the tensions of the strings.

12. (1) What do you understand by the *moment of a force*?

Prove the theorem of moments, viz. the algebraic sum of the moments of any number of forces is equal to the moment of their resultant.

(2) A rod without weight is acted upon by like parallel forces 10, 2, 5 at distances 2, 4, 6 from one extremity. If the rod is of length 8 ft., find the magnitude and the line of action of the resultant.

13. (1) State the Laws of Friction.

(2) A body of mass 20 grammes rests on a rough inclined plane (inclination 30° to the horizon) in limiting equilibrium. Find the reaction and friction.

14. Define an *erg* and a *foot-poundal*, and find the relation between them, given

$$1 \text{ lb.} = 453.6 \text{ grammes nearly,}$$

$$1 \text{ ft.} = 30.48 \text{ cm. nearly.}$$

15. (1) Describe the *first system of pulleys*.

(2) Find the mechanical advantage of this system of pulleys, and if $P+W=90$ lb., and $n=3$, find P and W .

PHYSICS.

Paper-setters— { MR. C. W. PEAKE, M.A.
 DR. D. N. MALLIK, B.A., Sc.D., F.R.S.E.
 BABU RAMENDRASUNDAR TRIVEDI, M.A.

FIRST PAPER.

Head Examiner—BABU JNANCHANDRA GHOSH, M.A.

Examiners— { BABU KALIPRASANNA GANGULI, M.A.
 BABU GANGADHAR MUKERJEE, M.A.
 BABU NIBARANCHANDRA RAY, M.A.
 BABU MANORATHADHAN DE, M.A.
 BABU RAJANIKANTA DE, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Not more than SEVEN questions to be attempted.

1. Distinguish between *work* and *energy*. A body falls under gravity and strikes the ground. Explain how the phenomenon supplies an illustration of the transformation of energy.

Does it also illustrate the principle of the conservation of energy? How?

2. What is a *simple pendulum*? Find the length of the (simple) seconds' pendulum at a place at which $g=981$.

What is the exact meaning of the statement $g=981$?

Will a pendulum clock gain or lose when taken to the top of a mountain from the bottom?

3. How would you find the specific gravity and the volume of a given solid?

If the specific gravity of a metal is 19, what will be the weight in water of 20 c.c. of the substance?

4. Describe an experiment to prove that air exerts pressure. How is this pressure measured?

If a certain pressure is equal to that exerted by a column of mercury of height 760 mm., find its magnitude. [Density of mercury = 13.6.]

5. Define *specific heat*.

How is the specific heat of a solid determined?

A piece of iron weighing 200 grammes at 100°C . is immersed in 20 c.c. of water at 20°C . Find the resulting temperature, if the specific heat of iron is 0.1124.

[The water equivalent of the calorimeter is neglected.]

6. Explain a method of measuring the maximum pressure of water vapour between 0°C . and 100°C .

Water is heated in an open vessel and continually stirred. Describe carefully the changes that the water will undergo.

7. Define *latent heat*.

It is found that one pound of steam at 100°C . when passed into 15 lb. of water at 0°C . raises the temperature of the water to 40°C . Calculate the latent heat of steam.

8. What do you understand by the *pitch* of a note ?

Explain a method of experimentally determining the pitch of the note emitted by a given tuning-fork.

9. How can the velocity of sound in atmospheric air be measured ? How is the velocity affected by changes of pressure and temperature ?

PHYSICS.

SECOND PAPER.

Head Examiner—BABU JNANCHANDRA GHOSH, M.A.

Examiners— $\left\{ \begin{array}{l} \text{BABU RADHIKAMOHAN CHAUDHURI, M.A.} \\ \text{BABU RADHAGOBINDA BHAWANI, M.A.} \\ \text{BABU SUSILCHANDRA CHAKRABARTI, M.A.} \\ \text{BABU JOGESCHANDRA MUKERJEE, M.A.} \\ \text{BABU BHABATARAN BRAHMACHARI, M.A.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

Not more than SEVEN questions to be attempted.

The questions are of equal value.

1. How are shadows formed ? Explain, with the help of a diagram, the formation of the umbra and the penumbra caused by an opaque ball, when light from a luminous sphere falls on it

2. Explain fully the phenomenon of total reflexion, illustrating your answer by means of careful diagrams.

Explain the phenomenon of the mirage.

3. Investigate, with the help of diagrams, the conditions for the formation of (a) a real image, (b) a virtual image, by a plano-convex lens.

Explain how you would experimentally determine the focal length of such a lens.

4. Describe an arrangement of apparatus for the production of a pure spectrum.

How does the spectrum of incandescent sodium vapour differ from those of limelight and sunlight ?

5. An insulated and uncharged hollow conductor is connected with a gold leaf electro-scope. Describe and explain the effects observed on the electro-scope, when—

(a) a charged ball held by a silk thread is introduced into the conductor;

(b) the ball is moved about inside the sphere, but is not allowed to touch it;

(c) it is brought in contact with the sphere;

(d), (e) the ball is taken out after the experiments (b) and (c).

6. State Ohm's Law.

The battery resistance b ohms for a current of C amperes was found in a certain test to be as follows:—

b	4.2	4.8	5.0	5.8	7.6	8.5	11.0
C	0.21	0.16	0.14	0.10	0.066	0.06	0.04

Illustrate these results graphically. Are they consistent with Ohm's law? [Neglect external resistance.]

7. State the laws of electrolysis.

Two plates of zinc are immersed in a solution of zinc sulphate and connected to the terminals of a voltaic battery. Describe and explain briefly the effects observed on the two plates.

8. A magnet is suspended at the centre of a coil with its plane in the magnetic meridian.

(a) No current passes.

(b) A current is passed through the coil.

(c) The strength of the current is gradually increased.

Describe the effects observed, indicating the influence of the direction of the current on the phenomena.

9. Describe experiments which illustrate the action between two currents and that of a magnet on a current.

10. A coil of wire has its ends connected to the terminals of a galvanometer.

(a) It is rapidly rotated about the vertical through half a revolution and then through the other half-revolution.

(b) The north-seeking pole of a magnet is rapidly introduced into the coil and then taken out.

State and, as far as you can, explain the effects observed.

11. Distinguish between a permanent and a temporary magnet. Explain how you would prepare an artificial magnet whose magnetism is permanent.

Define magnetic moment.

CHEMISTRY.

Paper-setters— $\left\{ \begin{array}{l} \text{RAI CHUNILAL BOSE, BAHADUR, I.S.O., M.B.,} \\ \text{F.C.S.} \\ \text{DR. P. C. MITRA, PH.D.} \\ \text{BABU JYOTIBHUSHAN BHADURI, M.A.} \end{array} \right.$

FIRST PAPER.

Head Examiner—BABU JYOTIBHUSHAN BHADURI, M.A.

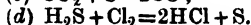
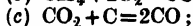
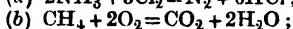
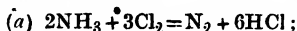
Examiners— $\left\{ \begin{array}{l} \text{BABU ATULCHANDRA GANGULI, M.A.} \\ \text{MR. K. G. NAYAK, M.A., B.Sc.} \\ \text{MR. B. K. SINGH, B.A.} \\ \text{BABU JATINDRAMOHAN DATTA, M.A.} \\ \text{BABU JOGESCHANDRA GHOSH, M.A.} \\ \text{BABU SURYYANARAYAN SEN, M.A.} \\ \text{BABU RAMESCHANDRA CHAKRABARTI, M.Sc.} \\ \text{BABU ANANDAKISOR DAS, M.A.} \\ \text{BABU JOGINDRANATH GHOSH, M.Sc.} \\ \text{BABU PRIYABRATA SARKAR, M.A., B.Sc.} \\ \text{BABU JNANENDRANATH MUKERJEE, M.Sc.} \\ \text{BABU JNANENDRACHANDRA GHOSH, M.Sc.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Only SIX questions are to be attempted, of which the FIRST must be one.

1. Explain the gravimetric and volumetric relations between the substances involved in the following reactions:— 20



2. Describe an experiment to show that a substance gains in weight when it burns in air. Explain how such an experiment may be utilized for determining the equivalent weight of an element. 16

3. Five glass jars, each containing a colourless gas, are given to you. They are supposed to be oxygen, hydrogen, nitrogen, carbon monoxide, and nitrous oxide. Describe experiments which would enable you to identify the gases. 16

4. Describe briefly the manufacture of the following substances:— sodium chloride, calcium oxide, zinc oxide, and ferrous sulphate. 16
Mention their uses.

5. How is mercury obtained from its ores? Describe the preparation and properties of mercurous and mercuric chlorides and the uses of metallic mercury. 16

6. How is bromine prepared in the laboratory? Give details of the experiment, and a sketch of the apparatus used. What is the action of bromine on copper, on sulphuretted hydrogen water, and on a solution of potassium iodide? Give equations.

7. What do you understand by volumetric analysis? How would you prepare a normal solution of sulphuric acid? Give details of the process.

CHEMISTRY.

Head Examiner—BABU JYOTIBHUSHAN BHADURI, M.A.

<i>Examiners</i> —	{	BABU DHIRENDRANATH MOOKERJEE, M.A.
		BABU ASUTOSH MAITRA, M.A.
		BABU HARIDAS MUKERJEE, M.Sc.
		BABU PHANIBHUSHAN CHATTERJEE, M.A.
		BABU KSHITISCHANDRA RAY, M.A.
		BABU SARATCHANDRA JANA, M.Sc.
		DR. D. N. CHAKRABARTI, Ph.D.
		BABU PRIYADARANJAN RAY, M.A.
		BABU SATISCHANDRA GANGULI, M.A.
BABU KUMUDNATH CHAUDHURI, M.A.		
BABU RAJANIKANTA BASU, M.A.		
DR. SUDHAMAY GHOSH.		

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Only SIX questions to be attempted, of which the FIRST must be one.

1. State Dalton's atomic theory. and show how the first and second laws of chemical combination can be deduced from it. 20

2. How would you obtain a jar of dry ammonia? Describe one experiment each to demonstrate its solubility in water, inflammability, lightness, and basic character. 16

3. How would you determine the composition by weight of carbon dioxide? What precautions would you take to secure accurate results? Sketch the apparatus used for the purpose. 16

4. What amount of marble will have to be dissolved in hydrochloric acid in order to produce 15 litres of carbon dioxide at 27° and 750 mm.? 16

What weight of pure carbon will give that amount of carbon dioxide on combustion?

5. How would you determine the composition by volume of hydrochloric acid? 16

6. How would you prepare a small quantity of sulphuric acid in the laboratory according to the chamber process? Sketch the apparatus you would use for the purpose. 16

State the chief uses of sulphuric acid.

7. How are the following substances prepared:—(a) Plaster of Paris, (b) Zinc Chloride, and (c) Nitre? State their properties and uses, and give one test only for the acidic and basic radicals in each. 16

BOTANY.

Paper-setters— { MR. S. C. MAHALANOBIS, B.Sc., F.R.S.E.
MR. C. C. CALDER, Esq., B.Sc.
DR. H. G. CARTER.

FIRST PAPER.

Examiners— { MOTHER M. DOLORES KNIGHT.
BABU SAHAYRAM BASU, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Only FIVE questions are to be answered.

1. Give an account of the various modes of propagation of plants by means of roots and stems.
2. What are the normal functions of leaves? For what other purposes leaves may be utilised?
3. Distinguish between a root-hair and a rootlet, as regards (a) structure and (b) function.
4. What do you understand by root-pressure? Describe some experiment by which you can demonstrate its existence.
5. Write short explanatory notes on the following botanical terms :—deliquescent, excurrent, zygomorphic, entomophilous, heliotropism, grafts, saprophytes, guardcells, sieve-tubes, bordered pits.
6. What is an inflorescence? Describe the forms of racemose inflorescences that you are acquainted with.
7. Briefly describe the life-cycle of a moss; and explain what you understand by "alternation of generations."

BOTANY.

SECOND PAPER.

Examiners— { BABU HARENDRANATH MITRA, M.A.
„ SATYASARAN SINHA, B.Sc.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Only FIVE questions are to be answered.

1. Describe the characteristics by which you recognise plants belonging to the natural order Malvaceæ. Mention two plants of economic interest that belong to this order.

2. Give an account of the various plant-members that are utilised as reservoirs of food.
3. Compare the fibro-vascular bundles in a monocotyledonous stem with those in the rhizome of a fern, as regards distribution and structure.
4. What is bark? Describe its function and the manner of its formation.
5. Describe fully the inflorescence and the flower of the wheat, and draw its floral diagram.
6. What do you understand by photo-synthesis? Describe some experiment by which you can demonstrate the products of this process.
7. Briefly describe the principles of classification of plants according to the natural system.

PHYSIOLOGY.

Paper-setters— $\left\{ \begin{array}{l} \text{HON. DR. NILRATAN SARKAR, M.A., M.D.} \\ \text{RAI UPENDRANATH BRAHMACHARI, BAHADUR, M.A., M.D., PH.D.} \\ \text{MAJOR D. MCCAY, M.B., I.M.S.} \end{array} \right.$

FIRST PAPER.

Examiner—BABU SATISCHANDRA BANERJEE, L.M.S.

FOUR questions only to be attempted.

Each question is of the same value.

1. What is the chemical composition of food? State how much of each proximate principle is required to balance the loss of the system.
2. Describe briefly the digestion and absorption of food.
3. Give the structure and functions of the skin.
4. Describe the course of the circulation. Give proofs of the circulation of the blood.
5. Describe the mechanism of the respiration. What gaseous exchanges take place during respiration?

PHYSIOLOGY.

SECOND PAPER.

Examiner—BABU NIBARANCHANDRA BHATTACHARYYA, M.A.

FOUR questions only to be attempted.

All questions are of the same value.

1. Describe briefly the structure of the spinal cord. What are its functions?

2. Write a short account of the phenomenon of muscular contraction.
3. Describe the histological characteristics of blood. What are the functions of the different elements?
4. Discuss the functions of the anterior and posterior nerve roots.
5. How are the cardiac sounds produced? What is the pulse?

GEOGRAPHY.

Paper-setters— { BABU JNANCHANDRA GHOSH, M.A.
 { MR. A. MERCER, M.SC.
 { MR. W. F. PAPWORTH.

FIRST PAPER.

Examiner—BABU SARATLAL BISWAS, M.SC.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Candidates must answer TWO only of the questions numbered 1, 2 and 3, and any FOUR of the remaining EIGHT questions.

1. (a) Describe carefully the physical configuration of the portion of country shown on Map A, referring especially to the position and the elevation of the mountain ranges, the shape and nature of the valleys, and the types of coastline and river mouth which are displayed. 20
 - (b) Draw a section of the country from A to B, making the ratio of the vertical to the horizontal section that of 5 to 1.
 - (c) Is X visible from Y?
 - (d) From the scale given calculate the R. F.
 2. In the accompanying map of Africa the isobars are given calculated for sea-level in July, together with the isotherms for the same month and the prevailing winds. Indicate by a well-graduated system of colour or shading the mean seasonal rainfall from May to October. 20
 3. Draw carefully a map of Australia. Show by means of shading or colouring the different types of vegetation and agricultural products there obtained. Indicate by small crosses the chief localities where coal, gold, and silver are found. Finally explain where the population is dense, scattered, scanty, absent. 20
 4. You are told to make a map of a portion of country such as is usually found in Bengal. Assuming that the length and the breadth of the piece allotted to you are 10 and 6 miles respectively, and that you have the choice of the following apparatus, show, by actual drawing, how you would set to work to execute the task. 15
- Apparatus supplied :—
- (a) Prismatic Compass, Protractor.
 - (b) Plane Table, Sighting Ruler, Chain.

5. It is desired that you should keep a record of certain of the climatic conditions of your district. Indicate the particular phenomena you would observe, state carefully what apparatus you would require, and how you would propose to use it; and draw up a scheme to show how you would record and tabulate your results. What might be the value of a consecutive series of such records? 15

6. Compare and contrast the Malabar coast of India with the Coromandel coast in respect of— 15

- (a) configuration,
- (b) climate and rainfall,
- (c) products and population.

7. 'Under similar conditions,' it is usually said, 'similar causes will produce similar effects.' Examine the truth of this statement with regard more especially to the Mediterranean and Monsoon types of climate. 15

8. Examine carefully the following tables, of which Table A contains statistics of the trade of Japan during a period of years midway between the Russo-Japanese War in 1904 and 1905 and the present European war, and Tables B and C refer to 1911 only:— 15

EXTERNAL TRADE.

TABLE A.

The imports and exports (exclusive of trade with Korea) of merchandise for the five years 1907-11 are stated as follows in *yen*:—

Year.	Imports.	Exports.	Total
1907	494,500,000	432,450,000	926,950,000
1908	436,250,000	378,250,000	814,500,000
1909	394,200,000	413,150,000	812,350,000
1910	464,250,000	458,500,000	922,750,000
1911	447,450,000	513,808,000	961,250,000

976 yen = Rs. 1 500.

TABLE B.

The exchange of merchandise was principally with the following countries in 1911 (in *yen*):—

Country.	Imports from.	Exports to.
United States	81,250,000	142,725,000
China	62,000,000	88,150,000
British India	100,000,000	20,310,000
United Kingdom	111,000,000	23,825,000
Germany	56,450,000	11,680,000
France	5,500,000	43,575,000
Korea	15,800,000	41,680,000

TABLE C.

The principal articles exchanged in 1911 were (in millions of yen):—

Imports.			Exports.		
Cotton	..	145	Silk	..	139
Machinery	..	26	Cotton thread	..	40
Grains and Seeds	..	36	Silks	..	34
Ironwork	..	47	Cottons	..	20
Petroleum	..	13	Copper	..	20
Wool	..	11	Coal	..	17
Sugar	..	9	Tea	..	14
Cottons	..	13	Strawplaits	..	6
Woollens	..	14	Matches	..	10

(a) What do these tables show with regard to—

(i) the agricultural products of Japan,

(ii) the mineral wealth,

(iii) the manufactures?

(b) Rewrite Table C, inserting the names of the foreign countries with which each item of trade is exchanged.

(c) What difference do you imagine the present war has made in the commerce of Japan?

9. When it is 10 a.m. in Calcutta what is time (a) in Bombay 15 and (b) in Rangoon?

The Longitude of Calcutta is $88^{\circ}30'$

„ „ Bombay is $72^{\circ}45'$

„ „ Rangoon is $96^{\circ}15'$

10. Show by means of a diagram how to project on to a cylinder a figure drawn upon the surface of a sphere. What is the name of this well-known type of projection, and what are the particular advantages and inaccuracies incidental to it? 15

11. If you had made daily observations of the length of the shadow cast at noon by a stick placed vertically in the compound, what differences would you have found between records made similarly at Calcutta, Darjeeling, and Rangoon? 15

GEOGRAPHY.

SECOND PAPER.

Examiner—A. MERCER, ESQ., M.Sc.

Candidates are to answer question 1, and any FIVE, but not more than five other questions.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Upon the accompanying map of the world insert and name the 20 following:—

London, Antwerp, Bremen, Hamburg, Genoa, New York, Boston, Port Said, Rio de Janeiro, Buenos Ayres, Jamaica, and Honolulu.

Name the chief ports upon the Pacific Ocean, and show the trading routes which connect them.

Insert the Panama Canal and Lima. Show the steamer route from New York to Lima both before and after the opening of this Canal. By actual measurement compare the two, and estimate the value of the Canal (a) to the United States, (b) to European nations, (c) to Jamaica.

2. What are the chief mineral products of India? In what localities are they found, and to what extent are they worked? Estimate their importance in the commerce of this country. 16

3. Britain depends upon supplies of raw materials for her prosperity. Mention the parts of the world which supply Britain with these necessities, distinguishing between those within and those without the Empire. 16

4. Contrast the development of Australia with that of Canada with reference to the physical conditions prevalent in each. 16

5. Estimate the comparative importance of New Zealand, South Africa, and Argentina as suppliers of food-stuffs, and more particularly (a) as rearers of sheep and cattle, (b) as cereal growers. 16

6. Describe carefully the irrigation works which have been carried out in the Punjab, and estimate the actual value of these works to the country. A sketch-map should be given to illustrate your answer. 16

Discuss the actual value of such works to a country like Mesopotamia.

7. Egypt is sometimes described as 'the gift of the Nile.' Show by a careful description of the configuration of the country, its vegetation, rainfall, and industries, whether you consider this title justly given. 16

8. Write a short description of Asia Minor, pointing out what part the country is likely to play (a) as a link between Europe and Asia, (b) as a possible granary of the world. 16

9. Draw a sketch-map of the basin of the river Danube. Show carefully the various nations whose territories are washed by this river or its more important tributaries, insert and name the most important towns upon its banks, and discuss its importance as a highway of trade. 16

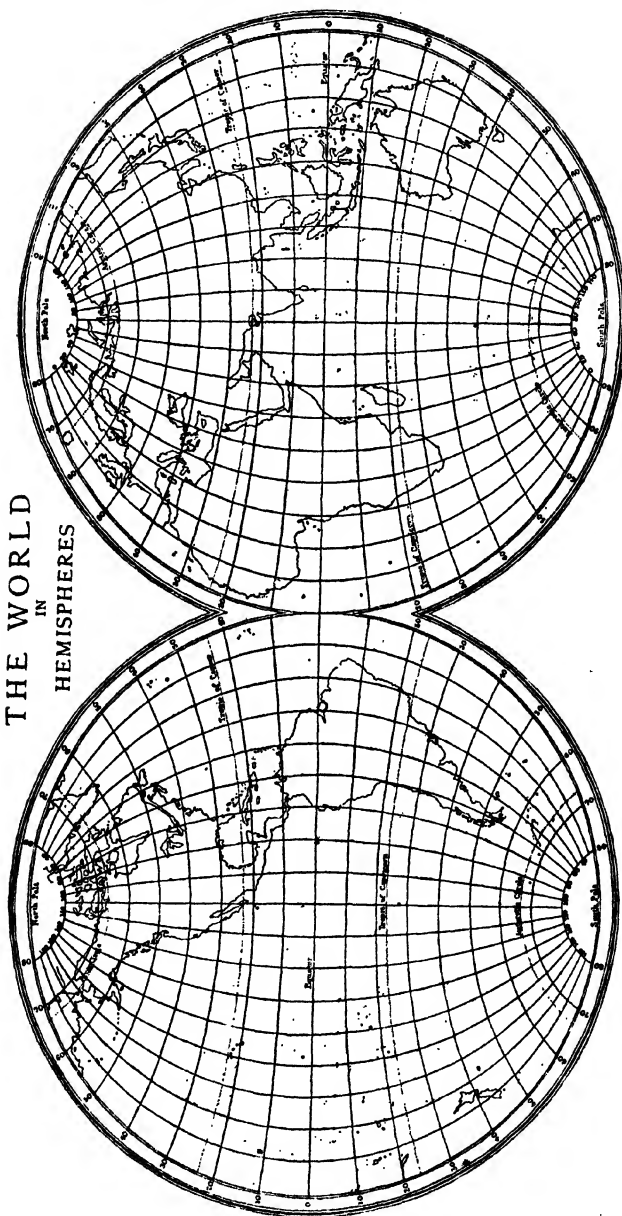
10. Give a concise description of Siberia, and estimate the respective values of (a) the rivers, (b) the railways, in developing the natural resources of the country. 16

11. From what localities is the world's supply of the following commodities obtained:—Petroleum, leather, rubber, quinine, paper, tea, tobacco, and wool? 16

INTERMEDIATE EXAMINATIONS, 1917.

GEOGRAPHY. Map.

SECOND PAPER.

THE WORLD
IN
HEMISPHERES

B. A. Examination.

1917.

ENGLISH.

Paper-setters— $\left\{ \begin{array}{l} \text{DR. H. STEPHEN, M.A., D.D.} \\ \text{J. N. DAS GUPTA, ESQ., B.A. (Oxon).} \\ \text{REV. DR. G. HOWELLS, M.A., PH.D.} \\ \text{REV. FATHER J. POWER, S.J.} \\ \text{DR. H. C. MUKERJEE, M.A., PH.D.} \end{array} \right.$

FIRST HONOURS PAPER.

Examiner—BABU HERAMBACHANDRA MAITRA, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. 'Yet do I fear thy nature.' Explain and comment on Lady Macbeth's conception of the character of her husband. How far is her estimate justified by subsequent events in the play? 15

Or,

'If it were done when 'tis done.' Give the substance of the speech which thus begins. What light does the speech throw on the character of the speaker?

2. Write explanatory and critical notes on the following:— 10

(a) What hands are here? Ha! they pluck out mine eyes.

Will all great Neptune's ocean wash this blood

Clean from my hand? No; this my hand will rather

The multitudinous seas incarnadine,

Making the green one red.

(b) Here's the smell of the blood still: all the perfumes of Arabia will not sweeten this little hand. Oh, oh, oh!

3. Discuss the following statement:— 10

At Belmont we meet Portia, the queen of the play, the Muse of Wisdom and of Love.

4. 'To bait fish withal.' Give the substance of the speech which is thus introduced, and remark on its dramatic significance. 10

Or,

Explain:—

Ant. I hold the world but as the world, Gratiano;

A stage where every man must play a part,

And mine a sad one.

How far does this declaration help us to understand the character and temperament of Antonio?

5. Annotate the following :— 5
 Such harmony is in immortal souls ;
 But whilst this muddy vesture of decay
 Doth grossly close it in, we cannot hear it.
6. Under the veil of superficial cynicism there appears in ' Childe Harold ' a robust enthusiasm for what is great, beautiful, and heroic in European history. 13
 Examine and illustrate the foregoing statement.
7. Give the substance of Byron's comments on and characterization of the life-history of Rousseau. 12

Or,

Write a short thesis on the thought contained in the following :—

If from society we learn to live,
 'Tis solitude should teach us how to die.

8. Indicate the salient features of Milton's description of *Chaos*. 10
 9. How does Milton characterize *Belial*, and how far does *Belial*'s speech accord with his character ? 15

Or,

Annotate the following :—

To be weak is miserable,
 Doing or suffering : but of this be sure—
 To do aught good never will be our task,
 But ever to do ill our sole delight.

What light does this declaration throw on the character of the speaker ?

ENGLISH.

SECOND HONOURS PAPER.

Examiner—BABU PRAPHULLACHANDRA GHOSH, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Give some account of Milton's opinions, political and religious. 12
 2. What attractions to Milton had the subject of *Paradise Lost* ? 14
 What limitations do you find in his treatment of it ?

Or,

Mention the characteristic features of Elizabethan dramatic verse : what alterations did Milton make in it ? 14

3. Examine any two of the following statements :— 12
 (a) Milton's style was not modified by his subject. (Johnson.)
 (b) From the first, then as now, *Paradise Lost* has been more admired than read. (Pattison.)
 (c) The Prose Works, as a whole, are not readable.
4. Explain any three of the following :— 12
 (a) The genial tolerant man regards him as a Pharisee.
 (b) Here then in two cases, is plagiarism which may be defined as unblest.

(c) The 'stylist' of the modern world is generally an interesting invalid.

(d) Books beget books: but the mystery of conception still evades us.

5. Compare the letters of Lamb and Burke on London; what indications do they give of the mind of the writers? 10

6. Explain the allusions:— 10

(a) I am very sorry to hear what you say of Keats.

(b) My dear father told thee that Goldsmith's would now be the deserted village.

(c) These authorities have divided the Gude Town.

7. Give a concise history of Phil Hazeldine. What do you think of his character? 10

Or,

Describe the doings of the Commissioners at Oxford. State briefly the salient points in their principles and character. 10

8 Explain in connexion with the context:— 9

(a) He that serves by the altar, must live by the altar.

(b) Honesty was a horse that might be over-burdened.

(c) I am bound over to keep the peace, like Captain Bobadil.

9. 'I am hammering away at a bit of a story from the old affair of diablerie at Woodstock.' What *diablerie* does Scott refer to? What use does he make of it in his *Woodstock*? 11

ENGLISH.

THIRD HONOURS PAPER.

Examiner—T. S. STERLING, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Give in your own words the substance of the following passage, and bring out its leading idea:— 25

No one disputes that Shakespeare handled the universal features of humanity, the traits common to all mankind. On the surface the highest manifestations of the great passions—ambition, jealousy, unrequited love—are the same throughout the world, and have no peculiarly national colour. But, to the seeing eye, men and women, when yielding to emotions that are universal, take something from the bent of their education, and from the tone of the climate and scenery that environ them. The temperament of the untutored savage differs from that of the civilized man; the predominating mood of northern peoples differs from that of southern peoples. Shakespeare was far too enlightened a student of human nature, whether he met men or women in life or literature, to ignore such facts as these. His study of foreign literature especially brought them home to him, and gave him opportunities of realizing the distinctions in human character that are due to race or climate. Of this knowledge he took full advantage. Love-making is universal, but Shakespeare recog-

nized the diversities of amorous emotion and expression which race and climate engender. What contrast can be greater than the boisterous bluntness in which the English king, Henry V, gives expression to his love, and the pathetic ardour in which the young Italians *Romeo and Ferdinand* urge their suits? Intuitively, perhaps involuntarily, Shakespeare with his unrivalled sureness of insight impregnated his characters with such salient features of their national idiosyncrasies as made them true to the environment that was appointed for them in the work of fiction or history on which he founded his drama. As the poet read old novels and old chronicles, his dramatic genius stirred in him a rare force of historic imagination and sensibility. Study developed in Shakespeare an historic sense of a surer quality than that with which any professed historian has yet been gifted. Caesar and Brutus, of whom Shakespeare learned all he knew in the pages of Plutarch, are more alive in the drama of Julius Caesar than in the pages of the historian Mommsen. Cleopatra is the historic queen of Egypt, and no living portrait of her is known outside Shakespeare. No errors in detail destroy the historic vraisemblance of Shakespeare's dramatic pictures.

2. Indicate and elucidate the purport of one of the following 25 sonnets :—

The Spirit of Shakespeare.

- (a) Thy greatest knew thee, Mother Earth ; unsoured
He knew thy sons. He probed from hell to hell
Of human passions, but of love deflowered
His wisdom was not, for he knew thee well.
Thence came the honeyed corner at his lips,
The conquering smile wherein his spirit sails
Calm as the God who the white sea-wave whips
Yet full of speech and intershifting tales,
Close mirrors of us : thence had he the laugh
We feel is thine : broad as ten thousand beeves
At pasture : thence thy songs, that winnow chaff
From grain, bid sick Philosophy's last leaves
Whirl, if they have no response—they enforced
To fatten Earth when from her soul divorced.
- (b) Leave me, O Love, which reachest but to dust ;
And thou, my mind, aspire to higher things ;
Grow rich in that which never taketh rust ;
Whatever fades, but fading pleasure brings.
Draw in thy beams, and humble all thy might
To that sweet yoke were lasting freedoms be ;
Which breaks the clouds, and opens forth the light,
That doth both shine, and give us sight to see.
Oh, take fast hold ; let that light be thy guide
In this small course which birth draws out to death,
And think how evil becometh him to slide,
Who seeketh heaven, and comes of heavenly breath.
Then, farewell, world ; thy uttermost I see :
Eternal Love, maintain thy life in me.

3. Write an essay on one of the following subjects :—

- (a) The influence of poetry on Life.
(b) Social progress in India during the past century.
(c) England and India—What they can learn of each other.
(d) Education in India.
(e) Shakespeare as a world-teacher.

ENGLISH.

FOURTH HONOURS PAPER.

Examiner—REV. DR. G. HOWELLS, M.A., PH.D.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Examine the following statement in the light of what you know of Shakespeare's *Richard II* and Marlowe's *Edward II*:— 12

'The reluctant pangs of abdicating royalty in Edward furnished hints, which Shakespeare scarcely improved in his *Richard the Second*; and the death scene of Marlowe's king moves pity and terror beyond any scene ancient or modern with which I am acquainted.—CHARLES LAMB, *Specimens of Dramatic Poets*.

Or,

Discuss the inconsistency in Marlowe's representation of the character of Isabella. Can you suggest any adequate explanation of it?

2. Comment on the following critical dicta:— 12

(a) 'Hamlet is Shakespeare.'—H. A. TAINÉ, *History of English Literature*.

(b) 'It has been suggested that Prospero, the great enchanter, is Shakespeare himself.'—E. DOWDEN, *Shakespeare Primer*.

Or,

Characterize the 'romances' of Shakespeare. What are the moral lessons taught by them? Show that they are specially emphasized in the *Tempest*.

3. Annotate with reference to the context:— 16

- (a) To-night thou shalt have cramps,
Side-stitches that shall pen thy breath up; urchins
Shall, for that vast of night that they may work,
All exercise on thee.

Or,

But these sweet thoughts do even refresh my labours,
Most busy lest, when I do it.

- (b) Hast thou, which art but air, a touch, a feeling
Of their afflictions, and shall not myself,
One of their kind, that relish all as sharply,
Passion as they, be kindlier moved than thou art?

Or,

Being once perfected how to grant suits,
How to deny them, whom to advance and whom
To trash for over-topping, new created
The creatures that were mine, I say, or changed 'em,
Or else new form'd 'em.

- (c) Why, my lord of Warwick,
Will not these delays beget my hopes?
I know it, lords, it is this life you aim at.

Or,

Weaponless must I fall, and die in bands ?
Oh ! must this day be period of my life,
Centre of all my bliss ?

- (d) Let him have the king ;
What else ? Here is the keys, this is the lake ;
Do as you are commanded by my lord.

Or,

K. Edw. Who 's there ? Convey this priest to the Tower.
Bish. of Cov. True, true.

4. Write a short note on the Hellenism of Keats. 10

Or,

Trace the sequence of the poet's thought in the ode *To a Night- 10*
ingale. Contrast the treatment with that of the ode *On a Grecian*
Urn.

5. Compare and contrast Matthew Arnold's *Thyrsis* with other 10
famous English elegies.

Or,

'To me this last (*Balder Dead*) stands alone in modern art for simple majesty of conception, sober directness and potency of expression, sustained dignity of thought and sentiment and style, the complete presentation of whatever is essential, the stern avoidance of whatever is merely decorative, indeed, for every Homeric quality save rhythmical vitality and rapidity of movement.'—W. E. HENLEY, *Views and Reviews*.

Justify and illustrate by referring to your text.

6. Annotate the following passages:—

- (a) Thou hearest the immortal strains of old. 7½
Putting his sickle to the perilous grain,
In the hot cornfield of the Phrygian king,
For thee the Lityerses song again
Young Daphnis with his silver voice doth sing ;
Sings his Sicilian fold,
His sheep, his hapless love, his blinded eyes ;
And how a call celestial round him rang,
And heavenward from the fountain-brink he sprang,
And all the marvel of the golden skies.

- (b) O Attic shape ! Fair attitude ! With brede 7½
Of marble men and maidens overwrought,
With forest branches and the trodden weed ;
Thou, silent form, dost tease us out of thought
As doth Eternity : Cold Pastoral !
When old age shall this generation waste,
Thou shalt remain, in midst of other woe
Than ours, a friend to man, to whom thou say'st
'Beauty is truth, truth beauty,'—that is all
Ye know on earth, and all ye need to know.

7. Rewrite in simple prose:—

- (a) Hail, Memory, hail ! in thy exhaustless mine 12½
From age to age unnumbered treasures shine !
Thy pleasures most we feel, when most alone ;
The only pleasures we may call our own.

Lighter than air, Hope's summer-visions die,
 If but a fleeting cloud obscure the sky ;
 If but a beam of sober Reason play,
 Lo, Fancy's fairy frost-work melts away !
 But can the wiles of Art, the grasp of Power,
 Snatch the rich relics of a well spent hour ?
 These, when the trembling spirit wings her flight
 Pour round her path a stream of living light,
 And gild those pure and perfect realms of rest
 Where Virtue triumphs and her sons are blest !

- (b) O may I join the choir invisible 12½
 Of those immortal dead who live again
 In minds made better by their presence : live
 In pulses stirred to generosity,
 In deeds of daring rectitude, in scorn
 For miserable aims that end with self,
 In thoughts sublime that pierce the night like stars,
 And with their mild persistence urge man's search
 To vaster issues. . . . May I reach
 That purest heaven, be to other souls
 The cup of strength in some great agony,
 Enkindle generous ardour, feed pure love,
 Beget the smiles that have no cruelty—
 Be the sweet presence of a good diffused,
 And in diffusion ever more intense.

ENGLISH.

FIFTH HONOURS PAPER.

Examiner—A. D. KEITH, ESQ., M.A.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

1. Do you agree with the statement that Lamb is 'an old writer who lived a century or two after his time'? If so, give reasons. 12
 With what older writers does he have affinities?

Or,

Comment on Lamb's appeal to the sense of taste for literary effects.

2. Show with reference to any three of the *Essays of Elia* wherein 12
 consists Lamb's charm as a prose writer.

Or,

Point out the autobiographical element in any three of the following essays:—

- (a) Dream-Children.
- (b) Christ's Hospital.
- (c) New Year's Eve.
- (d) Mackery End.

3. Annotate any *three* of the following :—

15

(a) I am no Herculean raker. The credit of the three witnesses might have slept unimpeached for me. I leave these curiosities to Porson, and G. D.

(b) His storms came near, but never touched us; contrary to Gideon's miracle, while all around were drenched, our fleece was dry.

(c) The Fainalls and the Mirabels, the Dorimants and the Lady Touchwoods, in their own sphere, do not offend any moral sense; in fact they do not appeal to it at all.

(d) They were in Arcadia still, but kings; the ferule of their sway not much harsher, but of like dignity with that mild sceptre attributed to King Basileus; the Greek and Latin, their stately Pamela and their Philoclea; with the occasional duncery of some untoward tyro, serving for a refreshing interlude of a Mopsa, or a clown Dametas!

4. Compare Steele's letters to 'Prue' with Swift's to Stella, as evidencing the difference between the strongly contrasted natures of the two writers.

10

Or,

Characterize the letters of Horace Walpole. Why has he been called 'the best letter writer in the English language'?

5. 'The letters of Chesterfield embody a good deal of sound advice, the result of the large worldly experience of an acute and cultivated nobleman.'

10

Justify and illustrate.

Or,

Write short notes on any *two* of the following :—

(a) Milton's explanation of his studious and retired life.

(b) Lady Montagu's ideas on education.

(c) The melancholy of Gray.

6. Annotate any *four* of the following :—

16

(a) We are afraid that B —— hath been guilty of that crime, that you (like a houghnhnm) have treated him as a yahoo.

(b) He is pleased with your placing him in the triumvirate between yourself and me: though he says that he doubts he shall fare like Lepidus.

(c) The joke here is, that he has had a fall upstairs, and he has done himself so much hurt, that he will never be able to stand upon his legs again.

(d) If the Louis the Great, whom Voltaire has discovered in Hungary, had not disappeared from history himself, would not Louis Quatorze have annihilated him?

(e) They would be glad of a Sir Charles Grandison, and prefer him even to a Lovelace, were he capable of being terribly in love.

7. Give the substance of the following passage, carefully indicating what you consider to be its central idea :—

25

It is proper to inquire by what peculiarities of excellence Shakespeare has gained and kept the favour of his countrymen. Nothing can please many, and please long, but just representations of general nature. Particular manners can be known to few, and therefore few only can judge how nearly they are copied. Shakespeare's characters are not modified by the customs of particular places, by peculiarities of studies or professions, or by the accidents of transient fashions and temporary opinions; they are the genuine progeny of common humanity, such as the world will always supply, and observation always find. In the writings of other poets a character is too often an individual; in those of Shakespeare it is commonly a species. It

will not easily be imagined how much Shakespeare excels but by comparing him with other authors. The theatre, when it is under any other direction, is peopled by such characters as were never seen, conversing in a language which was never heard, upon topics which will never arise in the commerce of mankind. Other dramatists can only gain attention by hyperbolical or aggravated characters, by fabulous and unexampled excellence or depravity; and he that should form his expectation of human affairs from their play or tale would be deceived. Shakespeare has no heroes; his scenes are occupied only by men who act and speak as the reader thinks that he should himself have spoken or acted on the same occasion: even where the agency is supernatural, the dialogue is level with life. This therefore is the praise of Shakespeare—that his drama is a mirror of life; he who has mazed his imagination in following the phantoms which other writers raise up before him may here be cured of his delirious ecstasies by reading human sentiments in human language, by scenes from which a hermit may estimate the transactions of the world.

ENGLISH.

SIXTH HONOURS PAPER.

Examiner—DR. H. STEPHEN, M.A., D.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

A. PHILOLOGY.

Answer Question 1 and any THREE others.

1. Write notes on any *seven* of the following words:—*thing*; *could*; 14
ought; *nought*; *one*; *its*; *methinks*; *children*; *quaint*; *uncouth*; *villain*; *jeopardy*.
2. Give some account of the different races of the British Isles and 12
the languages originally spoken by them, and indicate the contributions of each to the modern English language.
3. What main dialects of English prevailed during the fourteenth 12
century? What were their distinguishing characteristics? Which of them developed into modern English? What became of the others?
4. Classify the *mute* consonants, and explain and exemplify the 12
uniformity of 'consonantal transition' known as Grimm's Law.
5. State any *four* of the commonest suffixes by which words of 12
Anglo-Saxon origin, and any *four* by which words of Latin or Latin-French origin, may be distinguished, giving examples.
6. Sketch the history and the different forms and uses of the 12
Infinitive in English, with examples.
7. Explain and exemplify the different uses of the verb *do*, as a 12
'symbol' verb and auxiliary in English.
8. Explain the variations known as *ablaut* and *umlaut*, and give 12
illustrations from English.

B. HISTORY OF LITERATURE.

Answer Question 1 and any THREE others.

1. Describe the subjects, and state the periods and authors (if known) of any *five* of the following works:—*Beowulf*; *The Shepherd's Calendar*; *Euphues*; *The Dunciad*; *The Battle of the Books*; *Prometheus Unbound*; *Kenilworth*; *Vanity Fair*; *The Pickwick Papers*; *The Earthly Paradise*. 14
2. Sketch the life of Chaucer, and give the titles and subjects of any *four* of his principal poems. 12
3. Name *three* principal historians of the nineteenth century, with approximate dates, and give some account of their principal works. 12
4. Name and characterize *three* great novelists of the eighteenth century, with approximate dates, and give some account of their principal works. 12
5. Explain the origin and meanings of the word Romance. At what periods has romantic literature flourished most? Mention any *four* works of the romantic type, stating their authors (if possible) and periods. 12
6. Give some account of the principal works of John Dryden, Charles Lamb, and Robert Browning, with approximate dates. 12
7. What is a Lyric Poem? Name the principal kinds of lyric poems. Name any *three* of the best lyric poets, and any *one* of the best lyric poems of each. 12

ENGLISH.

FIRST PASS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiners— $\left\{ \begin{array}{l} \text{REV. A. WARREN.} \\ \text{R. C. GOFFIN, ESQ.} \\ \text{F. W. SUDMERSON, ESQ., B.A.} \\ \text{A. CAMERON, ESQ., M.A.} \end{array} \right.$

1. Give the substance of the dialogue between Banquo and Macbeth on the night of Duncan's murder. 10

Or,

Describe the scene in which Macduff is informed of the death of his wife and children.

2. Examine the evidence which helps us to determine the date of the composition of *Macbeth*. 5

Or,

Discuss the genuineness of the Porter scene in *Macbeth*.

3. 'To-morrow and to-morrow and to-morrow.' Give the substance of Macbeth's soliloquy which begins thus. What light does it throw on the character of the speaker? 10

4. 'The quality of mercy is not strain'd.' Summarize the speech which begins thus, explain the occasion on which it was spoken, and remark on its dramatic appropriateness. 10

5. 'Thou loss upon loss! the thief gone with so much, and so much to find the thief; and no satisfaction, no revenge.' Have we here the keynote to Shylock's character? Does the treatment meted out to the Jew in the play aim at appealing to our sympathy in his favour? 10

6. Write explanatory notes on any *two* of the following:— 5

(a) Such a hare is madness the youth, to skip o'er the meshes of good counsel the cripple.

(b) How oddly he is suited! I think he bought his doublet in Italy, his round hose in France, and his behaviour everywhere.

(c) Therefore the poet

Did feign that Orpheus drew trees, stones, and floods.

(d) How like a youngster or a prodigal

The scarfed bark puts from her native bay.

SECOND HALF.

Examiners— $\left\{ \begin{array}{l} \text{A. C. UNDERWOOD, ESQ., B.A., B.D.} \\ \text{BABU SATISCHANDRA MUKERJEE, M.A.} \\ \text{BABU RAJANIKANTA GUHA, M.A.} \\ \text{DR. HARENDRAKUMAR MUKERJEE, M.A., PH.D.} \end{array} \right.$

7. Annotate any *four* of the following:— 12

(a) Thammuz came next behind,
Whose annual wound in Lebanon allured
The Syrian damsels to lament his fate.

(b) When night
Darkens the streets, then wander forth the sons
Of Belial, flown with insolence and wine.

(c) Anon they move
In perfect phalanx to the Dorian mood
Of flutes and soft recorders.

(d) From behind the moon,
In dim eclipse, disastrous twilight sheds
On half the nations, and with fear of change
Perplexes monarchs.

(e) Anon out of the earth a fabric huge
Rose like an exhalation, with the sound
Of dulcet symphonies and voices sweet.

8. Intend at home,
While here shall be our home, what best may ease
The present misery. 13

What did the spirits 'intend', and how did they pass their time during Satan's absence?

Or,

What if we find
Some easier enterprize?

What is this 'easier enterprize' which Beelzebub recommends, and by what arguments does he justify his recommendation?

9. Lausanne! and Ferney! ye have been the abodes 13
 Of names which unto you bequeath'd a name.
 Give the substance of Byron's characterization of the 'names'
 associated with Lausanne and Ferney.
10. Write explanatory notes on any *three* of the following, indicat- 12
 ing the context in each case :—
 (a) Thou pendulum betwixt a smile and tear.
 (b) Europe's bulwark 'gainst the Ottomite.
 (c) The spouseless Adriatic mourns her lord.
 (d) The Niobe of nations.
 A young Aurora of the air,
 (e) The nympholepsy of some fond despair.
 (f) The starry fable of the milky way
 Has not thy story's purity.

ENGLISH.

SECOND PASS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiners— { BABU BHUSHANCHANDRA DASS, M.A.
 { DR. JAJNESWAR GHOSH, M.A., PH.D.
 { NARENDRANATH RAYE, ESQ., M.A.
 { J. S. ZEMIN, ESQ.

1. 'Milton has taken a scheme of life for life itself.' How does 12
 Raleigh dispose of this explanation of the want of interest in *Paradise
 Lost*? What reasons does he give to explain that want of interest?
2. Sketch, after Raleigh, the character of Satan : how does Milton 14
 attempt to allay his scruples about his portrait?
3. Explain any *three* of the following :— 12
 (a) The burial of *Clovis* was hastened by ridicule.
 (b) He writes as if all were Cromwells or Miltons.
 (c) To forego all these diluted forms of speech is to run the risk
 of the scholar's melancholy.
 (d) It is Ulysses who is 'reluctant' and Calypso who is 'amorous.'
4. Illustrate *three* of the following statements :— 12
 (a) In the case of Milton, the imperfection of our sympathy is
 due to other causes.
 (b) The exigencies of controversy revealed in Milton the flash of
 real wit.
 (c) How carefully Milton adjusted the sound to the sense is
 known to every reader of *Paradise Lost*.
 (d) Milton wrings the last drop of value from each word.

SECOND HALF.

Examiners— { BABU GOPALCHANDRA GANGULI, M.A.
 BABU RABINDRANARAYAN GHOSH, M.A.
 BABU JAYGOPAL BANERJEE, M.A.
 BABU JYOTISCHANDRA BANERJEE, M.A.

5. Sketch the views taken by Royalist and Republican respectively, of Shakespeare and Milton. 15

Or,

Describe Woodstock : what incidents in Scott's novel are connected with Rosamond's Tower and the King's Oak.

6. Describe briefly the scenes in which the following occur :— 10

(a) What thou dost, do quickly,

(b) They are coming hither who shall be called Maher-shalal-hash-baz.

(c) You must carry your tricks of fortune-telling to the women of the village.

7. Give the substance of Hood's letter on the uses of literature. 14
 Compare his humour with that of Cowper.

8. Explain *two* of the following sentences, adding a brief notice of the writer in each case :— 11

(a) It is here that letters obtain the noblest triumph.

(b) He seemed on the whole a most loving kissing kind-hearted gentleman.

(c) The flat dog made me write a flat sonnet.

(d) You shan't make canticles of my cantos.

ENGLISH.

THIRD PASS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiners— { BABU SATYENDRANATH BHADRA, M.A.
 BABU SATISCHANDRA DE, M.A.
 BABU RAKHALDAS GHOSH, M.A.
 RAI LALITMOHAN CHATTERJEE, BAHADUR,
 M.A.

1. Give in your own words the substance of the following passage, 25
 and comment on its aim and purpose :—

We cannot determine what the queenly power of women should be, until we are agreed what their ordinary power should be. We cannot consider how education may fit them for any widely extending duty,

until we are agreed what is their true constant duty. And there never was a time when wilder words were spoken, or more vain imagination permitted, respecting this question—quite vital to all social happiness. The relations of the womanly to the manly nature, their different capacities of intellect or of virtue, seem never to have been yet estimated with entire consent. We hear of the “mission” and of the “rights” of Woman, as if these could ever be separate from the mission and the rights of Man;—as if she and her lord were creatures of independent kind, and of irreconcilable claim. This, at least, is wrong. And not less wrong—perhaps even more foolishly wrong (for I will anticipate thus far what I hope to prove)—is the idea that woman is only the shadow and attendant image of her lord, owing him a thoughtless and servile obedience, and supported altogether in her weakness by the pre-eminence of his fortitude. This I say, is the most foolish of all errors respecting her who was made to be the help-mate of man. As if he could be helped effectively by a shadow, or worthily by a slave! Let us try, then, whether we cannot get at some clear and harmonious idea (it must be harmonious if it is true) of what womanly mind and virtue are in power and office with respect to man’s; and how their relations, rightly accepted, aid and increase the vigour, and honour, and authority of both.

2. Give the purport of one of the following passages, and elucidate its underlying thought :— 25

(a) Here, while the tide of conquest rolls

Against the distant golden shore,
The starved and stunted human souls
Are with us more and more.

Vain is your Science, vain your Art,
Your triumphs and your glories vain,
To feed the hunger of their heart
And famine of their brain.

Your savage deserts howling near,
Your wastes of ignorance, vice, and shame,—
Is there no room for victories here,
No field for deeds of fame?

Arise and conquer while you can
The foe that in your midst resides,
And build within the mind of Man
The Empire that abides.

(b) Leave this chanting and singing and telling of beads! Whom dost thou worship in this lonely dark corner of a temple with doors all shut? Open thine eyes and see thy God is not before thee!

He is where where the tiller is tilling the hard ground, and where the path-maker is breaking stones. He is with them in sun and in shower, and his garment is covered with dust. Put off thy holy mantle and even like him come down on the dusty soil!

Deliverance? Where is thy deliverance to be found? Our master himself has joyfully taken upon him the bonds of creation; he is bound with us all for ever.

Come out of thy meditations and leave aside thy flowers and incense! What harm is there if thy clothes become tattered and stained. Meet him and stand by him in toil and in sweat of thy brow.

SECOND HALF.

Examiners— { BABU HEMCHANDRA SARKAR, M.A.
J. W. HOLME, ESQ., M.A.
BABU BIJAYGOPAL MUKERJEE, M.A.
BABU PARESNATH SEN, M.A.

3. Write an essay on one of the following subjects :— 50
- (i) Higher education as a preparation for life.
 - (ii) The achievements of modern science.
 - (iii) The emancipation of the depressed classes.
 - (iv) The ideal college.
 - (v) The influence of literary study on the formation of character.

BENGALI COMPOSITION.

Paper-setters— { HON. JUSTICE SIR ASUTOSH MUKERJEE,
KT., C.S.I., M.A., D.L.
RAI SAHEB, DINESCHANDRA SEN, B.A.
BABU AKSHAYCHANDRA SARKAR, B.L.

Head Examiner—MAHAMAHOWADHYAYA HARAPRASAD SHASTRI,
C.I.E., M.A.

Examiners— { BABU JOGENDRANATH BASU, B.A.
BABU AKSHAYCHANDRA SARKAR, B.L.
BABU HARENDRALAL RAY, B.L.
BABU HEMENDRANATH SINHA, B.A.
BABU PURNACHANDRA DE, B.A.
BABU SASADHAR RAY, M.A., B.L.
RAI SAHEB ISHANCHANDRA GHOSH, M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Estimate Vidyasagar as a writer of Bengali prose. 12

Or,

Give an account of Vidyasagar as a friend and advocate of female education in Bengal. 12

2. Point out the peculiar excellences of *either* the Kiratarjaniya or the Sishupal Badha. 9

3. Illustrate some of the most attractive traits in the character of Kapalakundala by references to incidents described in the book. 9

Or,

Indicate what glimpses of Tantrikism are to be found in the character of Kapalika. 9

4 Translate *either* of the following extracts into Bengali :—

(a) Vidyapati Thakur is one of the most renowned of the Vaishnava poets of Hindustan. Before him there had been the great Jay Deva with his Gita Govinda made in Sanskrit. Vidyapati's fame, though he also wrote in Sanskrit, depends upon the wreath of songs in which he describes the union of God and soul, under the names of Krishna and Radha. These were written in Maithili—his mother tongue—a dialect intermediate between Bengali and Hindi, but nearer to the former. His position as a poet and maker of language is analogous to that of Dante and Chaucer. He did not disdain the folk-speech and folk-thought for the expression of the highest matters. Little is known of Vidyapati's life. Two other great Vaishnava poets, Chandidas and Umapati, were his contemporaries. His patron, Raja Shiva Sinha Rupa Narayana, when heir-apparent, gave the village Bisafi as a rent-free gift to the poet in the year 1400 A.D. This shows that in 1400 the poet was already a man of distinction. 20

(b) Kalidas probably lived in the fifth century of the Christian era. This date, approximate as it is, must yet be given with considerable hesitation, and is by no means certain. No truly biographical data are preserved about the author, who nevertheless enjoyed a great popularity during his life, and whom the Hindus have regarded as the greatest of Sanskrit poets. We are thus confronted with one of the remarkable problems of literary history. For our ignorance is not due to neglect of Kalidas's writings on the part of his countrymen, but to their strange blindness in regard to the interest and importance of historic fact. No European nation can compare with India in devotion to its own literature, yet, when we seek to reconstruct the life of the greatest Indian poet, we have no materials except certain legends. 20

5. Rewrite the following in chaste and elegant Bengali, retaining the words used in the text so far as you can after corrections, and punctuating the sentences :— 16

এ বড় ভূমিতে রাজা চন্দ্রকেও পৃষ্ঠি অনেক অনেক রাজগণ
উদ্ভব হইরাছিলেন কিন্তু কদাচিত তাহাদের কেবলমাত্র নাম শুনা যায়
তদ্ব্যতিরেক তাহাদের বিশেষ বৃত্তান্ত কিমতে বুদ্ধি কিমতে পতন
নিরাকরণ কিছুই উপস্থিত নাই। তাহাতে যে সমস্ত লোকেরা এ
সকল প্রসঙ্গ শ্রবণ করে অল্পপূর্বক না জানাতে কোষিত হয়।
সমগ্রতি সর্কারভে এদেশে প্রতাপাদিত্য নামে এক রাজা হইরাছিলেন
তাহার বিবরণ কিঞ্চিৎ পারস্য ভাষায় গ্রন্থিত আছে আমি তাহার
শ্রেণী একই জাতি ইহাতে তাহার বিবরণ আপনায় পিতৃপিতামহের
স্থানে শুনা আছে অতএব আমরা অধিক জ্ঞাত এবং আর আর অনেকে
সহায়তার উপাখ্যান অল্পপূর্বক জানিতে আকিঞ্চন করিলেন এজন্য
যেমতে আমার ক্রম আছে তদনুযায়ী লেখা যাইতেছে।

6. Correct the errors in *two* of the following :—

4

(a) তাঁহার সৌজন্যতা দেখিয়া আমরা পরম সন্তোষ হইলাম।

(b) আমি তাঁহার মূর্তি আমার হৃদয়-মুকুরে লিখিয়া রাখিয়াছি এবং তাহা প্রেমসিংহাসনে অঙ্কিত করিয়া অশ্রু দ্বারা অভিষিক্ত করিতেছি।

(c) ধনধান্যশালিনী এই প্রদেশ সত্যসত্যই আমাদের জননীরূপিনী।

7. Write an essay on one of the following subjects:—

30

(a) All that glitters is not gold.

(b) The paths of glory lead but to the grave.

(c) The principal incidents of your life—your domestic and educational career.

HINDI COMPOSITION.

Paper-setters— { MAHAMAHOPADHYAYA DR. GANGANATH JHA,
M.A., D.LITT.
LALA SITARAM, B.A.

Examiner—LALA SITARAM, B.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate any two of the following passages into Hindi:—

40

(a) One comfort is that Great Men, taken up in any way, are profitable company. We cannot look, however imperfectly, upon a great man, without gaining something by him. He is the living light-fountain, which it is good and pleasant to be near. The light which enlightens, which has enlightened the darkness of the world; and this not as a kindled lamp only, but rather as a natural luminary shining by the gift of Heaven; a flowing light-fountain, as I say, of native original insight, of manhood and heroic nobleness; in whose radiance all souls feel that it is well with them. On any terms whatsoever, you will not grudge to wander in such neighbourhood for a while. These six classes of Heroes, chosen out of widely-distant countries and epochs, and in mere external figure differing altogether, ought, if we look faithfully at them, to illustrate several things to us. Could we see them well, we should get some glimpses into the very marrow of the world's history. How happy could I but, in any measure, in such times as these, make manifest to you the meanings of Heroism; the divine relation (for I may well call it such) which in all times unites a Great Man to other men; and thus, as it were, not exhaust my subject, but so much as break ground on it! At all events, I must make the attempt.

(b) Each man has his own vocation. The talent is the call. There is one direction in which all space is open to him. He has faculties silently inviting him thither to endless exertion. He is like a ship in a river; he runs against obstructions on every side but one; on that side all obstruction is taken away, and he sweeps serenely over a deepening channel into an infinite sea. This talent and this call depend on his organization, or the mode in which the general soul in-

carries itself in him. He inclines to do something which is easy to him, and good when it is done, but which no other man can do. He has no rival. For the more truly he consults his own powers, the more difference will his work exhibit from the work of any other. His ambition is exactly proportioned to his powers. The height of the pinnacle is determined by the breadth of the base. Every man has this call of the power to do somewhat unique, and no man has any other call. The pretence that he has another call, a summons by name and personal election and outward 'signs that mark him extraordinary, and not in the roll of common men,' is fanaticism, and betrays obtuseness to perceive that there is one mind in all individuals, and no respect of persons therein.

(c) And we may add that Caesar was constitutionally as well as by accident of position, too much a man of the world, had too powerful a leaning to the virtues of active life, was governed by too partial a sympathy with the whole class of active forces in human nature, as contradistinguished from those which tend to contemplative purposes, under any circumstances, to have become a profound believer, or a steadfast reposer of his fears and anxieties, in religious influences. A man of the world is but another designation for a man indisposed to religious awe or to spiritual enthusiasm. Still it is a doctrine which we cherish, that grandeur of mind in any one department whatsoever, supposing only that it exists in excess, disposes a man to some degree of sympathy with all other grandeur however alien in its quality or different in its form. And upon this ground we presume the great Dictator to have had an interest in religious themes by mere compulsion of his extraordinary elevation of mind, after making the fullest allowance for the special quality of that mind, did certainly, to the whole extent of its characteristics, tend entirely to estrange him from such themes.

2. Write an essay in simple and idiomatic Hindi on *one* of the following subjects:— 40

(a) Gratitude—explanation of the term—distinction between gratitude of the heart and gratitude of the lips—common causes of gratitude—child and parent—scholar and teacher—gratitude due to public benefactors—how gratitude can be expressed—baseness of ingratitude.

(b) Moral education—it is best given at home—example better than precept—little effect produced by formal lessons in morality—intellectual education tends to produce moral improvement.

(c) Influence of the Ramayan on the character of Hindus.

(d) The character of Hanuman as depicted in the Ramayan of Tulasidas.

3. Rewrite the following passage after filling up the ellipses:— 20

प्राणाय देशों—स्त्रीशिक्षा ने—विलक्षण—धारण किया ।
 वहाँ—ने निश्चय—कि स्त्रियों—प्रत्येक—की शिक्षा—चाहिये ।
 इसी—स्त्रियों—सामाजिक स्वतंत्रता दी गई ।—देशों की स्त्रियाँ
 नाच—में, बाग—में जहाँ—बिना रोक—जा सकती हैं और
 जीविकोपार्जन के लिये—पर अवलंबन न करके—मनमाना—कर
 सकती हैं ॥

ORIYA COMPOSITION.

Paper-setters—{ HON. MR. MADHUSUDHAN DAS, C.I.E., M.A.
BABU MADHUSUDHAN DAS, B.A.

Examiner—BABU MADHUSUDHAN DAS, B.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate *any two* of the following passages into Oriya :— 30

(a) But what is interest but another name of what our previous education or hereditary influences prepare us for. It is nothing but unconscious or conscious preparation for the reception of new ideas and impressions. A mason sees in a pile of stones the possibility of a building, the plate-layer the ballast for the line, the architect material for a statue, while an enemy nothing but so many missiles which should be projected against the wall or gates of a besieged fort to batter it down.

(b) Read aright, the fable of the tortoise and the hare points a moral in this direction. The hare was beaten by the tortoise because the latter possessed the staying faculty. At school and at college we frequently see the prizes carried off by the men whom an ignorant impatience had criticized as dull, slow, and incapable plodders, while the dashing brilliant fellows, apparently sure of victory without an effort, were left hopelessly behind in the race. They had no reserve to fall back upon, while the former had a latent accumulation of strength on which they drew at need, enabling them to meet every demand.

(c) While men and women still exist who will thus suffer and thus die, losing themselves in the thought of others, surely the many forms of woe and misery with which this earth is spread do but give occasions of working out some of the highest and best qualities of which mankind are capable. And oh, young readers, if your hearts burn within you as you read of these various forms of the truest and deepest glory and you long for time and space to act in the like devoted way, bethink yourselves that the alloy of such actions is to be constantly marked away in daily life.

(d) How pleasant it is to live with those who are always kind and cheerful and obliging. Such persons seem to carry a perpetual sunshine about them ; wherever they go they make smiling faces and happy grateful hearts.

Should we not all be anxious to learn thus to diffuse happiness among our friends and acquaintances ? The secret of this is, to think of others more than we do of ourselves. True politeness springs from a kind and loving heart. The true lady and gentleman are those who are kind to every one they meet. Thus the poorest man can be a true gentleman, and the poorest woman a lady.

2. *Either,*

8

(a) Compare and contrast the character of Sudakhina with that of Indumati.

Or,

(b) Point out the peculiar excellences of Mahajatra as a Kanya in blank verse.

3. Rewrite *one* of the following passages in simple and idiomatic Oriya:— 5

(a) ଯେ ପର ଶୁଦ୍ର ଘଟରେ ଅନନ୍ତା କାଶର ଅଂଶ ମାତ୍ର ଉପଲବ୍ଧି କରି ମାନବ ଆକାଶର ପରତପ୍ତ ଦେବାକୁ ସାହସ କରେ, ଗୋଷପଦ ଦର୍ଶନରେ ମହାସମୁଦ୍ରର ମହମା ସ୍ଵରଣ କରେ, ଅନନ୍ତ କାଳଗର୍ଭସ୍ଥ ଅନନ୍ତ ଇତିହାସର ଅଭ୍ୟୁଦୟ ମାତ୍ର ପାଇ ପୁରୁଷତ୍ଵ ଆଲୋଚନା କରିବାକୁ ପ୍ରୟାସୀ ହୁଏ, ସେହି ପର ଆସେଷ ମାନେ ଅଦ୍ୟ ଅଧୁନିକ ଭୁବନେଶ୍ଵର ଶେଷ ପରଦର୍ଶନ କରି ପୁରଣ ପ୍ରସିଦ୍ଧ “ଏକାମ୍ରକାନନ”ର ମହାତ୍ମ୍ୟ ଓ କମଳାୟତା ବର୍ଣ୍ଣନା କରିବାକୁ ପ୍ରୟାସୀ ହୋଇ ଅଛନ୍ତି ।

(b) ଏହିରୂପେ ନାନାଦେଶ, ବନ, ଜନପଦ—
 ଶ୍ରୀକୃଷ୍ଣ ଗିରିପୁଷ୍ପ ମହାନଦୀ ଦ୍ରୋଣି
 କ୍ରମେକ୍ରମେ ଅଭିକ୍ରମ, ପ୍ରବେଶିଲେ ବାରେ
 ଦକ୍ଷିଣା ପଥର ଦ୍ଵାର ଦେହଲୀ ରୂପିଣୀ
 ମାଳଭୂମି, ତନ ମହାସ୍ଵେତର ପ୍ରସୂତା ।

4. Rewrite the following, correcting all errors:—

7

କ୍ରମେ ସନ୍ଧ୍ୟା କାଳ ଘନାଭୂତା ହୋଇଲା । ପାତଳା କୁଜଝଟି ଜାଲ ଘନାଭୂତ ହେବା ସଙ୍ଗେ ଯୁଧିଷ୍ଠିର ପ୍ରତ୍ୟାବର୍ତ୍ତନ ସେନା ପରାଏ ପସୁ ପକ୍ଷିମାନେ ଗୋଲମାଲ କରି ଶୀଘ୍ର ଯାଏ, ଅପଣାର ବଞ୍ଚାମର ପ୍ରାଣକୁ ନଈଟିଲେ । ସର୍ବାର ମଧ୍ୟ ଅପଣାର ବାସକୁ ଫେରିଯିବାର ଉଦ୍ୟତା ହେବା ପୂର୍ବରୁ ସନ୍ତ୍ରୀମାନଙ୍କୁ ତାହାର ରାଶ୍ଟ୍ରପତି କାର୍ଯ୍ୟର ବନ୍ଧୁତ ଅବେଶ ଦେଲେ ।

5. Express in *ten* different ways the idea contained in *any one* of the following sentences:— 10

- (a) ମିଥ୍ୟାବାଣୀ ଶତତାଳପୁଷ୍ପ ବସ୍ତ୍ର ପରିଧାନ କରି ଥାଏ ।
 (b) ସେ କାହାରି ଉପକାର କରି ପାରିଲେ କୋଟିନିଧି ପାନ୍ତି ।
 (c) ଆଜି ସକାଳେ କାହା ମୁହଁ ଗୁହ୍ୟତା ଯେ ଏତେ ବେଳ ଯାଏ ପାଣି ଟୋପାଏ ବି ମିଳିଲା ନାହିଁ ।

6. Write an essay on *any one* of the following subjects:—

40

- (a) Industrial needs of an agricultural country.
 (b) The evils of indiscriminate charity.
 (c) The career and character of Ram.
 (d) We change from day to day.

ASSAMESE COMPOSITION.

Paper-setters— { SRJUT HEMCHANDRA GOSWAMI, B.A.
 { SRJUT PADMANATH BARUA, B.A.

Examiner—BABU NABINCHANDRA BARDOLAI, B.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into Assamese any two of the following three passages :—

(a) The mango-tope in which the English were resting was but a mile distant from the entrenched position occupied by Sirajuddaula's army. It was about 800 yards in length and 300 in breadth, the trees planted in regular rows. All round it was a bank of earth, forming a good breastwork. Beyond this was a ditch choked with weeds and brambles. The length of the grove was nearly diagonal to the river, the north-west angle being little more than 50 yards from the bank, whilst at the south-west corner it was more than 200 yards distant. A little in advance, on the bank of the river, stood a hunting-box belonging to the Nawab, encompassed by a wall of masonry. In this during the night Clive placed 200 Europeans and 300 natives with two field-pieces. But in the morning he withdrew the greater part of them. He had with him 950 Europeans, infantry and artillery, 200 Topasses, men of mixed race, armed and equipped as Europeans, 50 sailors with 7 midshipmen attached, 2,100 Sipahis, a detail of lascars, and the field-pieces already mentioned.

(b) I am no lover of moonlight. Most of my adventures in that way have been of a disastrous nature, whether by land or by water. One fine summer evening, for instance, returning in the captain's boat, gallantly manned by the officers of the ship, from a frigate where we had dined, to the Isle of Wight, where we were residing, the boat was unluckily stranded off St. Helens. We were obliged to wait five dismal hours until the tide was so good as to come and take us off; the captain's lady, a peevish, shrewish personage, taking occasion to fret and fume and scold the whole time, ringing the changes on all the evils that were likely to befall us, from catching cold to being drowned, until she worked herself up into a fit of crying, and was effectually quieted by the first lieutenant throwing a hatful of sea-water in her face. I never shall forget those five hours.

(c) Beware, my young friends, lest you grow up with an assuming and selfish spirit. Regard your parents as kindly given you by God, to support, direct, and govern you, in your present state of weakness and inexperience. Express your respect for them in your manner and conversation. Do not neglect those outward signs of dependence and inferiority which suit your age. You are young, and you should therefore take the lowest place and rather retire than thrust yourselves forward into notice. You have much to learn, and you should therefore hear instead of seeking to be heard. You are dependent, and you should therefore ask instead of demanding what you desire; and you should receive everything from your parents as a favour and not as a debt.

2. Give the meaning of the following words and phrases in Assamese :— 5

- (a) মনেপতা ; (b) লুইতত বালি-ডেটা ; (c) সঁজাল ; (d) নিধক ;
(e) অভেকৰ ন-মুঠি.

3. Give your comments on the character of— 5

- (a) দুয়ন্ত ; (b) শকুন্তলা ; (c) শ্ৰিয়ম্বদা ; and (d) বিদুবক as briefly as possible.

4. Turn the following into modern Assamese :— 5

হেন শুনি গোপসবো বৎসক জল পিয়াই কোমল তৃণত মেলি
ভগ্নৰূপে সমে ভোজন কৰিবে লৈনা। তাত অনেক পংক্তি মণ্ডল কৰি
কৃষ্ণক সমুখ হুৱা পত্ৰ কলিকাৰ পত্ৰ সম প্ৰকাশ কৰিল। পত্ৰ পুষ্প
গল্পৰ, ফল, অঙ্কুৰ, চৰ্ম, সিকতাৰ শিলাও ভোজন পাত্ৰ কৰিল।
আপুনাৰ দাদ অন্নক অত্ৰো অত্ৰো দেখাই হাস্য কৰি সে ভোজন
কৰিল।

5. Construct sentences in Assamese, using each of the following words and phrases :— 5

- (a) বিত্তিকালি ; (b) খুন্দাপিঠা ; (c) শাহগৰকা ; (d) অদৰমালতী ;
(e) বাট্টোটোকা।

6. Write an essay in Assamese on any one of the following subjects :— 40

- (a) ইউৰোপৰ মহাবল।
(b) ভাৰতৰ বাজৰজি।
(c) অসমীয়া ভাষাৰ আগছোৱা।
(d) মহাজন।
(e) দেশহিতৈষিতা।

URDU COMPOSITION.

Paper-setters: } MAULAVI MUHAMMAD MUSTAPHA KHAN, M.A.,
 B.L.
 DR. M. M. HUQQ, PH.D.

Examiner—DR. M. M. HUQQ, PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into Urdu *any two* of the following passages :—

(a) For several years Hannibal kept himself unbeaten, won other 20 victories, and once appeared before the gates of Rome; but all his generalship was wasted on the stubborn temper of the Romans. They had the advantage of being at home, able to raise more soldiers from the centre of Italy, where most of their vassals stood faithful to them; and even when they avoided meeting Hannibal in battle, they could send armies into Sicily and Spain to assail his allies there. He was ill-backed by the rulers of Carthage, and must have had great difficulty in feeding and paying the soldiers he could keep together, while the well-trained veterans he had led into Italy were by this time mostly killed in his many battles. So the tide of fortune began to turn. From Spain Hannibal's brother Hasdrabal set out to join him with an army that might have given him fresh strength. But after crossing the Alps Hasdrabal was slain in a decisive battle; and his head, thrown into Hannibal's camp, told the great general how ten years of victories had all gone in vain.

(b) Integrity in word and deed is the backbone of character, and 20 loyal adherence to veracity its most prominent characteristic. One of the finest testimonies to the character of the late Sir Robert Peel was that borne by the Duke of Wellington in the House of Lords, a few days after the great statesman's death. 'Your lordships,' he said, 'must all feel the high and honourable character of the late Sir Robert Peel. I was long connected with him in public life. We were both in the Councils of our sovereign together, and I had long the honour to enjoy his private friendship. In all the course of my acquaintance with him I never met a man in whose truth and justice I had greater confidence, or in whom I saw a more invariable desire to promote the public service. In the whole course of my communication with him I never knew an instance in which he did not show the strongest attachment to truth; and I never saw in the whole course of my life the smallest reason for suspecting that he stated anything which he did not firmly believe to be the fact.' And this high-minded truthfulness of the statesman was no doubt the secret of no small part of his influence and power.

(c) The kingdom of Bengal had long been independent of Delhi 20 and Babar had no immediate intention of subduing it, so long as it did not interfere with him. The king Nusrat Shah had sent ambassadors to Agra who had possessed amity, and even paid *peahkash* or tribute; and the reports from Bengal had so far been entirely reassuring. Nevertheless, the Bengal troops were now massed on the frontier and were apparently supporting the defeated Afghans. On the other hand, it was possible that they were merely taking precautions against

the war being carried into their own country. An envoy from the King of Bengal was informed that no injury was intended towards his country, but the Emperor was resolved to quell the rebels wherever they might be found. The envoy departed with the customary gifts and robe of honours, but it became clear that his master meant war. Reinforced by 20,000 men from Jaunpur, Babar resolved to force the passage of the Gogra in face of the Bengalis. He made unusually elaborate preparations, for he knew the enemy were skilful gunners, and were in great force.

2 Explain in your own words in Urdu the idea contained in the following lines :—

گھٹا اک پہاڑوں سے بطحا کے اٹھی
پڑی چار سو یک بیک دھوم جسی
کڑک اور دمک دور دور اسکی پہونچی
جو ٹیکس پہ گرجی تو گنگا پہ برسی
رہے اس سے محروم آبی نہ خاکی
ہری ہو گئی ساری کھیتی خدا کی

3. Paraphrase in simple Urdu :—

10

اگر معرکہ رزم یا صحبت بزم اسکی انشا کروں صفحہ دنیا پر نہ
لکھ سکوں - دم رزم رستم و سام و فریمان مثل پیر زال لڑزاں *
اور وقت سخا اور عطاے زر و مال حاتم کے ہاتھ میں کاسے
سوال * بزم طرب میں زہرہ و مشتری سرگرم نغمہ پردازی و عریذہ
سازی * ہنگام عطا و خشم مریخ مستعد جلادی و بیدادی *
بسکہ سحاب بخشش اس بحر عطا کا روز و شب مرزعة کہہ
و مہہ پر بارش رکھتا ہے - شہر میں سالہا کان مشتاق سائل کی
صدا کا - اور دیدہ ندیدہ صورت گدا کا * عدل یہ کہ ہاتھی
چیونٹی سے قرتا ہے - شیر بکری کی اطاعت کا دم بہرتا ہے *

4. Write an essay in Urdu on one of the following subjects :—

40

- (a) *Musaddas-i-Hāli*.
- (b) Modern Urdu prose.
- (c) Some Urdu newspaper, its contents, its machinery for publication and circulation, its moral and political influence.
- (d) Ill fares the land, to hastening ills a prey,
Where wealth accumulates and men decay.

BURMESE COMPOSITION.

Paper-setters—{ W. G. WEDDERSPOON, Esq., M.A., LL.B.
MAUNG TIN, Esq.

Examiner—MAUNG BA, Esq., B.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. (a) Rewrite the following in Burmese prose:—

10

ရှင်နှစ်ရွယ်လောက်။ ရောက်သည်ကာလ။ ပြာသာဒ်မထက်။ နေဝလျက်လျှင်။ ခြေလက်အဆုံး။ နှလုံးသည်းအူ။ ထုတ်ယူမနှေး။ ပေးအံ့မမြို့။ ကျွန်ပြုထိုလည်း။ ဝိသုတံမှာ။ ကျွန်ခံပါထိမ့်။ သဒ္ဓါနှစ်နှစ်။ ကြံသော်ဖြစ်က။ ကြွေးတစ်သံတင်။ လျှင်သိမ့်သိမ့်။ တောင်ထိုမ့်မြောက်ထိုမ့်။ မိုးနှယ်လိမ့်လျက်။ မိုးကြိုးတက်၍။ ပွက်ပွက်ဆူဝေ။ သမုန်ရေလည်း။ လေမခပ်သိုင်း။ လှိုင်းတဘောင်ဘောင်။ မြင်းမိုရ်ရောင်လည်း။ ရပ်ဘောင်သာစည်။ လောင်းမင်းတည်သား။ ပြည်သို့ဖဲ့စောင်း။ မိန်းမျဉ်းပြောင်းသား။ ကြိမ်းညောင်းပမာ။ နတ်တကာနှင့်။ ဗြဟ္မာချီမြွက်။ သာဓုဆက်သည်။ ။ ဆန်တက်အုံအံ့ဝှန်းဝါတည်း။

(b) Explain the following in your own words:—

10

- (i) ခဏလျောင်းရာ။ မျောက်မျည်းခါ၍။
- (ii) ဟုပ်စားလုယက်။ ညဉ့်ဌက်တအုပ်။
- (iii) အိုးကားမဆူ။ ဖုံးဖွက်ပူ။
- (iv) စားခြင်းလက်တဆစ်။ ဆိုခြင်းမြိုကိုးနှစ်။
- (v) သာဓုကာတလင်ပန်း။ ပင်ပန်းသည်ကားတယောက်မ။

2. Translate into Burmese :—

(a) Slowly and stealthily the Indians advanced while the Christian camp, hushed in profound silence, seemed to them buried in slumber. But no sooner had they reached the slope of the rising ground than they were astonished by the deep battle-cry of the Spaniards, followed by the instantaneous apparition of the whole army, as they sallied forth from the works, and poured down the sides of the hill. Brandishing aloft their weapons they seemed to the troubled fancies of the Indians, like so many spectres or demons hurrying to and fro in mid air, while the uncertain light magnified their numbers, and expanded the horse and his rider into gigantic and unearthly dimensions. Scarcely waiting the shock of their enemy, the panic-struck barbarians let off a feeble volley of arrows, and offering no other resistance fled rapidly and tumultuously across the plain. 20

(b) The culprit was indeed not unworthy of that great presence. He had ruled an extensive and populous country, and made laws and treaties, had sent forth armies, had set up and pulled down princes. And in his high place he had so borne himself that all had feared him, that most had loved him, and that hatred itself could deny him no title to glory, except virtue. He looked like a great man, and not like a bad man. A person small and emaciated, yet deriving dignity from a carriage which, while it indicated deference to the court, indicated also habitual self-possession and self-respect, a high and intellectual forehead, a brow pensive but not gloomy, a mouth of inflexible decision, a face pale and worn, but serene, on which was written, as legibly as under the picture in the Council-Chamber at Calcutta *Mens æqua in arduis* : such was the aspect with which the great proconsul presented himself to his judges. 40

3. Write an essay in Burmese on one of the following :—

- (a) Friendship.
- (b) The Value of the Theatre.
- (c) National Progress.

ENGLISH.

ALTERNATIVE PAPER.

Paper-setters—{ BABU HERAMBACHANDRA MAITRA, M.A.
J. W. HOLME, ESQ., M.A.

Examiner—G. H. LUCE, ESQ., B.A.

Candidates are required to give their answers in their own words as far as practicable.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

- 1. Sum up Carlyle's literary criticism of the *Waverley Novels*. 14
 - 2. 'Scott, in the new venture of the nineteenth century, was intrinsically very much the old fighting Borderers of prior centuries.' 12
- Can you justify this judgment of Carlyle ?

3. 'His *Sincerity*, his indisputable air of Truth,' Show how Carlyle considers this element in the poet Burns as being his essential attribute. 12

4. What is it that, according to Carlyle, marks Burns off from such writers as Milton and Cervantes? 12

SECOND HALF.

5. Explain the significance of—'The Crown of Wild Olive.' 10

6. Elucidate *three* of the following:— 24

(a) The old rider and reiver frankly quartered himself on the publican for the night;—the modern one merely makes his lance into an iron spike, and persuades his host to buy it.

(b) London is a great city of play; very nasty play, and very hard play, but still play.

(c) It is the *character* of children we want, and must gain at our peril.

(d) Out of imperfect knowledge spring terror, dissension, danger and disdain; but from perfect knowledge, given by the full-revealed Athena, strength and peace, in sign of which she is crowned with the olive spray, and bears the resistless spear.

(e) The distinguishing sign of slavery is to have a price, and be bought for it.

7. *Either,* 16

Show the connection of the following observations with Ruskin's argument, and illustrate them by examples:—

(a) All real joy and power of progress in humanity depend on finding something to reverence, and all the baseness and misery of humanity begin in a habit of disdain.

(b) No nation ever made its bread either by its great arts, or its great wisdoms.

Or,

Write a short essay on:—

"To do the best for others is finally to do the best for ourselves."

SANSKRIT.

Paper-setters— { RAI RAJENDRACHANDRA SASTRI, BAHADUR, M.A.
 MAHAMAHOPADHYAYA DR. SATISHCHANDRA VIDYABHUSHAN, M.A., PH.D.
 BABU BRAJALAL CHAKRABARTI, M.A.
 BABU SURENDRANATH MAJUMDAR, SASTRI, M.A.

FIRST HONOURS PAPER.

*Examiner—*BABU KUNJALAL NAG, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Give the substance of what Manu lays down about the modes of salutation (अभिवादनविधि) to be observed by a Brahmachārin (student). 6
2. Give the substance of Manu's definition of *four* of the following terms :— 8

एकादशेन्द्रियाणि, उपाध्याय, गुरु, स्वविर, धर्म, and उपवीती ।

3. Translate *any two* of the following into English :— 10

- (a) मनः चक्षुं विकुरुते चोद्यमानं सिद्धयया ।
 आकाशं जायते तस्मात् तस्य ब्रह्मगुणं विदुः ॥
- (b) चतुष्पात् सकलो धर्मः सत्यञ्चैव कृते पुणे ।
 नाधर्मशासनः कश्चिन्मनुष्यस्य प्रतिवर्त्तते ॥
- (c) तं चेदभ्युदियात् दूर्यः श्रयाणं कामचारतः ।
 निहोचेद्वाप्यविज्ञानाज्जपन्पदचेद्विनम् ॥
- (d) कामात्मता न प्रशस्ता न वैदेहास्तकामता ।
 काव्यो हि वेदाधिगमः कर्मयोगश्च वैदिकः ॥

4. Translate the following into English :— 7

ब्राह्मणो जपेनेव निःसन्देहं चिद्धिं लभते, मोक्षप्राप्तियोग्यो भवति । अग्न्यै वैदिकं यागादिकं करोतु न करोतु वा, यस्मात् मैत्रो ब्राह्मणो ब्राह्मणः सम्बन्धी ब्राह्मणं लीयते इत्यागमेषूच्यते, मित्रमेव

नेत्रः स्नार्थं अण् । यागादिषु पञ्चवीजादिवधात् न सर्व्वप्राणिप्रियता
सम्भवति । तस्माद् यागादिना विनापि प्रणवादिजपनिष्ठो निस्सरतीति
जपप्रशंसा, न तु यागादीनां निषेधः, वैधामपि प्राणीयत्वात् ॥

5. Give the substance of the following in your own words in Sanskrit:— 4

उदितेऽनुदिते चैव समयाध्युक्षिते तथा ।

सर्व्वथा वर्त्तते यच्च इतीयं वैदिकी श्रुतिः ॥

6. Write what you know about the place in which Bhāravi was born and the time in which he flourished. 6

7. Explain the following stanza in Sanskrit in the manner of Mallinātha:— 5

कृतारिषड्वर्गजयेन मानवीम्

अगम्यरूपां पदवीं प्रपित्सुना ।

विभष्य नक्तन्दिमस्ततन्द्रिया

वितन्यते तेन नयेन पौरुषम् ॥

8. Translate two of the following stanzas into English:— 10

(a) असक्तमाराधयतो यज्ञायथं

विभष्य भक्त्या समपन्नपातया ।

गुणानुरागादिव सख्यमौघिवान्

न बाधतेऽस्य त्रिगणः परस्परम् ॥

(b) वनान्तश्चय्याकठिनीकृताकृद्धी

कचाचितो विष्वगिवागजो गजो ।

कथं त्वमेतौ धृतिसंयमो यमो

विलोकयन्नुत्सहसे न बाधितुम् ॥

(c) इवमिष्टगुणाय रोचतां

हचिरार्था भवतेऽपि भारती ।

ननु वक्तृविशेषनिःस्पृहाः

गुणपुञ्जा वचने विपश्चितः ॥

In (a) is there any *samāsa* in परस्परम् ? Give the feminine form of इविवान् . In (b) expound the *samāsa* in वनान्तश्चय्याकठिनीकृताकृद्धी, derive विष्वक्, and give the present participle form of the root of बाधितुम् . In (c) conjugate the root of रोचतां in कुरु in all persons and numbers, and write notes on गुणपुञ्जाः ।

9. Give the substance of *one* of the following in English :—

5

(a) अनेकराजनरथाश्चसकुलं

तदीयमाव्यामनिकेतनाजिरम् ।

नयत्यगुरमच्छदगम्भिरार्द्रतां

भृशं नृपोपायनदन्तिनां मदः ॥

(b) उपजापसहान् विलङ्घयन्

स विधाता नृपतौ नृमदोद्धतः ।

सहते न जनोऽप्यघः क्रियां

किमु लोकाधिकधाम राजकम् ॥

In (a) derive राजन्य and account for the final र in अयुग्मच्छदगम्भि । 4

In (b) derive राजकम् and parse विधाता ।

10. Translate the following passages into Sanskrit :—

25

(a) Two friends were passing through a street when an old woman saluted them both with a *salaam*. The friends began to quarrel as to whom the woman had *salaamed*, and when they could not come to any settlement of the dispute, they resolved to refer the matter to the old woman. So they ran quickly after her crying, 'O-Mamma, Mamma, wait a moment and resolve our doubt'. The woman stopped and asked what the matter was. The friends said : 'Mamma, whom did you salute?' The old woman replied, 'I saluted the greater fool of you two'.

(b) Vikramaditya, King of Avanti, was one of the most powerful sovereigns who ruled India, and was famous for his strict and impartial administration of justice. He often inspected the condition of his people, and discovered the real state of affairs by mixing among them, alone and in disguise. In this way he came to know many strange and startling things, and unravelled many mysteries.

SANSKRIT.

SECOND HONOURS PAPER.

Examiner—BABU KUNJALAL NAG, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. To what extent has the author of the *Uttararāmacharita* altered the narrative of Vālmiki? How do the changes introduced by him help to develop the plot of the drama? 15

2. (a) Translate into English *two ślokas*, selecting one from each group :—

GROUP A.

(i) तस्याः पुष्पमयी शरीरकुलिता शय्या शिलायामियम्
ज्ञानो मन्मथलेख रश्मिनिर्गच्छ नखैरर्पितः ।
हृत्कान्तुमिदं विषाभरणमित्यासन्नमानेक्ष्यो
निर्गन्तुं सङ्घा न वेतसमुद्गाहीशोऽस्मि शून्याहपि ॥

(ii) रन्यान्तरः कमलिनीहरितः खरोभि-
प्रकायादुमेर्नियमितार्कमरीचितापः ।
मूयात् कुशेशयरत्नोत्तुरेणुरथाः
शान्तामुत्सलपवनश्च शिवश्च पन्याः ॥

GROUP B.

(iii) किञ्चलयमित्य मुरधं बन्धनाद्विप्रसूनं
हृदयकुसुमशोषो दारुणो दीर्घशोकः ।
रत्नपति परिणयडु क्षामधियाः शरीरं
शरदिज इव धर्मः केतकीगर्भपत्न्यम् ॥

(iv) चिरं ध्यात्वा ध्यात्वा निहित इव निर्माय पुरतः
प्रवासेऽप्याश्वासं न खलु न करोति प्रियजनः ।
जगज्जीर्णारखं भवति हि त्रिकल्पव्युपरमे
कुक्कुलानां गङ्गा तदनु हृदयं पच्यत इव ॥

(b) Derive **ज्ञान**, **कुशेशय**, **विप्रसून**, and **क्षाम**. Give the third person singular forms of the roots of **ज्ञान** and **विप्रसून** in **खट** and **खुट**.

3. (a) Refer to the context and explain in *five* form *one śloka* from group A and *one* from group B :—

GROUP A.

(i) यथेन्द्रावानन्दं व्रजति समुपेत्य कुमुदिनी
तथैवास्मिन् हृष्टिर्मम कलङ्ककामः पुनरयम् ।
भयत्कारक्षुरक्वणितगुणगुञ्जदुःखमु-
धृतप्रेमा दाहुरिक्कचविकरालोत्थारसः ॥

- (ii) न तेजस्तेजस्वी प्रचतमपरेषां विषहते
 स तस्य स्वी भावः प्रकृतिवृत्तकत्वादकृतकः ।
 मयूखैरश्रान्तं तपति यदि देवो दिनकरः
 किमाग्रयो ग्रावा निकृत इव तेजोधि वसति ॥

GROUP B.

- (iii) इदमग्निश्चिरैरन्तस्तापाह्विवर्णमयीकृतं
 निशि निशि भुजग्यस्तापाङ्गप्रवर्तिभिरश्रुभिः ।
 अनभिलुलितव्याघाताङ्गं मुहुर्मैयिदम्बनात्
 कनकवलयं खलं खलं मया प्रतिसार्यते ॥
- (iv) रम्याणि वीक्ष्य मधुरांश्च निशम्य शब्दान्
 पर्युत्सुकीभवन्ति यत् सुखितोऽपि जन्तुः ।
 तच्चेतसा स्मरति नूनमबोधपूर्वं
 भावस्थिराणि जननान्तरबोधुवानि ॥

(b) Expound and name the *samāsas* in the underlined word in 4
śloka (i). Comment grammatically on सौहृद् in *śloka* (iv).

(c) Name and explain the अलंकार in *śloka* (ii). 2

4. (a) Give the purport of *any two* of the following *ślokas* in Sanskrit with clear reference to the context:— 12

- (i) यदुत्तिष्ठति वर्णभ्यो वृषाणां क्षयि तद्वनम् ।
 तपःपटुभागमक्षय्यं दशत्यारण्यका हि नः ॥

- (ii) आचार इत्याधिकृतेन मया पृहीता
 या वेत्रयष्टिरवरोधसुहेषु राक्षः ।
 काले गते बहुतिथे मम सेव जाता
 प्रस्थानविव्रातगतेरवलम्बनार्था ॥

- (iii) विश्वम्भरा भगवतौ भवतीमसूत
 राजा प्रजापतिसमो जनकः पिता ते ।
 तेषां बधूस्त्वमसि नन्दिनि पार्थिवानाम्
 येषां कुलेषु सविता च गुहर्वयञ्च ॥

- (iv) कष्टो जनः कुलधनेरनुरञ्जनीय-
 स्तन्नो यदुक्तमश्विनं न हि तत् क्षमं ते ।

नेवर्गिकी सुरभिः कुसुमस्य सिद्धा

सूक्तिं स्थितिर्न चरयोरवताहितानि ॥

(b) Why is *उत्तिष्ठति* in *śloka* (i) not in *चातुर्नेपथ्ये*? Comment 3
grammatically on *चक्षुष्यम्*.

5. Turn into Sanskrit and write explanatory notes on *any three* of 12
the following extracts, referring each to its context:—

(a) जह कस्यचि पिण्डमज्जरेहिं सन्नेजिदस्य तिमिलीय अहि-
लासो भवे तह इत्यन्तराश्रयपरिभोदयो भवतो ह्यत्र अहभयया ।

(b) चाग्रं उक्तिमत्र कहिं वा महाबहं श्रीदरह ।

(c) की द्वाणि सरीरणि द्वावहन्ति अं सारदि अं ओषधिं पठन्ते
वारेदि ।

(d) चक्रवाक्यद्वय आमन्तेहि सहग्रं । सन्नदिदा रमणी ॥

6. Derive *श्रीजायितं* in *सेनिकानां प्रमाणेन सयमोजायितं त्वया* . 2

7. Translate into Sanskrit:— 25

Enter Darduraka.

Yes, gambling is a kingdom without a throne.

You do not mind defeat at all;

Great are the sums you spend and win;

While kingly revenues roll in,

Rich men, like slaves, before you fall.

Well, what is this I see? What did you say, sir? 'This shampooer is being maltreated by the gambling-master, and no one will save him?' I'll save him myself. [*He presses forward.*] Stand back, stand back! [*He takes a look.*] Well, if this isn't that swindler Māthura. [*Māthura drags the shampooer about.*] Fool! you may maltreat him when I am away, but not before my eyes.

You'll lose your caste, you'll lose your soul,

For ten gold-pieces that he stole,

To kill a man that's sound and whole

With five good senses in him.

[*Māthura seizes the shampooer and hits him on the nose. The shampooer bleeds, faints and falls flat. Darduraka approaches and interferes. Māthura strikes Darduraka.*]

Darduraka. You son of a slave! you shall see to-morrow, in court, whether you are to beat people in this manner.

Māthura. Ah, ha! yes, yes, I shall see.

Darduraka. How will you see?

Māthura (opening his eyes wide). In this way.
[*Darduraka throw dust in Māthura's eyes.*]

SANSKRIT.

THIRD HONOURS PAPER.

Examiners—{ BABU UMACHARAN BANERJEE, M.A.
BABU KASINATH DASS, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate any two of the following passages into English :—

(a) कल्लोलमालिकाभिहतः पोतः समुद्राम्बुमञ्जत् । गर्भभरा- 15
लसां तां ललनां घात्रीभावेन कल्पिताहं कराभ्यामुद्वहन्ती फलकमे-
कमधिरुच्य वैवगत्या तीरभूमिमगमम् । सुहृज्जनपरिवृतो रत्नोद्भवस्तत्र
निमग्नो वा केनोपायेन तीरमगमद्वा न जानामि । क्लेशश्च परां काष्ठा-
मधिगता सुहृत्ताऽस्मिन्नठवीमथ्येऽद्य सुतमसूत । प्रसववेदनया विचेतना
या प्रच्छाद्यशीतले तस्तले निवसति । विजने वने स्थातुमशक्यतया
जनपदशामिनं मार्गमन्वेष्टुमुद्युक्तया मर्यां विवशयास्तस्याः समीपे
बालकं निक्षिप्य गन्तुमनुचितमिति कुमारोऽप्यनायि इति । तस्मिन्नेव
स्थले वन्यो दारुणः कश्चिददृश्यत । तं विलोक्य भीता या बालकं
निपात्य प्राद्वत् । अहं समीपलतागुल्मके प्रविश्य परीक्षमाणोऽतिष्ठम् ।
निपतितं बालकं पल्लवकवलमिवावदति गजपतो कण्ठ्यैरवो भीमरवो
महाग्रहेण न्यपतत् । भयाकुलेन दन्तावलेन भठिति विधति समुत्पा-
त्यमानो बालको न्यपतत् । चिरायुष्यतया स चोन्नततरुशाखासमासीनेन
वानर्येण केनचित् पक्षफलवुद्ध्या परिपुष्ट्य फलेतरतया विततकन्धबूले
निक्षिप्तोऽभूत् । सोऽपि मर्कटः क्वचिदगात् । बालकेन सत्त्वसम्पन्नतया
सकलक्लेशसहेनाभावि । केशरिणा करिणं निहत्य कुत्रचिदगामि ।
सतामृद्वाग्निर्गतोऽहमपि तेजःपुङ्गुं बालकं शनैरवनीरुहादवतार्य वनान्तरे
वनितामन्विष्याविलोक्यौनमानौय गुरवे निवेद्य तद्भिद्वेगेन भवम्लिकट-
मानीतवानञ्चि इति ॥

(b) रक्ततरो हि तस्याः परिजनो न रहस्यं मेत्यतीति । सोऽ- 15
ब्रवीत्—“साधु भद्रे दर्शितम् । अस्ति कश्चित् तच्छरः खननकर्मणि
सगरसुतानामिवान्यतमः, स सेल्लव्यःस्थलेनैतत् कर्म साधयिष्यतीति ।

कतमोऽसौ, किमिति न लभ्यते” इति मयोक्ते येन तद्वनमित्रस्य चर्मरत्नं मुषितमिति त्वामेव निरदिक्षत् । “यद्येव मे हि, त्वयाऽस्मिन् कर्मणि साधिते चित्रैरुपायैस्त्वामहं मोचयिष्यामीति श्रपयपूर्वं तेनाभिसन्धाय सिद्धेऽर्थे भूयोऽपि निगडयित्वा योऽसौ चोरः स सर्वथोपक्रान्तः, न तु धार्ष्ट्यभूमिः प्रकृष्टवैरक्तदलिनरत्नं दर्शयिष्यति” इति राज्ञे विज्ञाप्य चित्रमेनं वनिष्यसि । तथा च सत्यर्थः सिध्यति, रक्ष्यं च न खडति इति मयोक्ते सोऽतिदृष्टः प्रतिपद्य मामेव त्वत्पुपप्रसोभने नियुज्य बहिरवस्थितः । प्राप्तप्रितःपरं चिन्त्यतामिति । प्रीतेन च मयोक्तम्—मनुक्तमख्यं, त्वन्नय एवात्र भूयान्, आनयेनमिति । अथानीतेनामुना मन्योचनाय श्रपयःकृतः, मया च रक्ष्यानिर्भेदाय । विनिगड्यैकृतश्च ज्ञानभोजनविलेपनान्यनुभूय नित्यान्वकारात् काराभित्तिकोणादारभ्योरगाद्येन सुरङ्गमकरवम् । अचिन्त्ययं चेवम्—“हन्तुमनवेवामुना मन्योचनाय श्रपयः कृतः । तदेनं हत्वाऽपि नासत्यवादकोषेण ख्यये” इति । निष्पततश्च मे निगडनाय प्रसार्यमाणपाथेस्तस्य पावेनोरसि निहत्य पतितस्य तथवासिधेन्वा शिष्टो न्यकृन्तम् ॥

(c) आपतच्च दीपिका लोकपरिलुप्यमानतिमिरमारं यष्टिकृपाण-पाणिनागदिकवलमनस्यम् । दृष्ट्वैव प्रवेपमानां कन्यकामवदम् — भद्रे मा भैषीः, असत्यमसिद्धितीयो मे बाहुः । अपि तु सुहृदयस्तुपायस्त्वद्वेक्षया चिन्तितः । शयेऽहं भावितविषवेगविक्रियः । त्वयाऽप्यसौ वाच्याः—“निशि व्यभिमां पुरीं प्रविष्टाः, दष्टश्च ममैष नायको दर्वीकरेणामुष्मिन् सभायुहकोथे । यदि तः कश्चित् मन्त्रवित् कृपालुः, स एनमुज्जीवयन् मम प्राणानाहरेदनाथायाः” इति । सा वाला गत्यन्तराभावाद् भयगद्गदस्वरा बाध्यदुर्दिनात्ती बद्धवेपथुः कथं कथमपि गत्वा मनुक्तमन्वतिष्ठत् । अश्रयिषि चाहं भावितविषवेगविक्रियः । तेषु कश्चिन्नरेन्द्राभिमानी मां निर्वर्ण्य सुद्रातन्त्रमन्त्रध्यानादिभिश्चोपक्रस्याकृतार्थः, “गत एवायं कालदष्टः, तथा हि स्तब्धश्याममङ्गम्, रुद्रा दृष्टिः, शान्त एवोष्मा । शुचालं वासु, शोऽग्निवात् करिष्यामः, कोऽतिवर्त्तते वैवम्, इति सचेतरेः प्रायात् । उत्थाय चाहमुदारकाय तां नोत्वान्नवम् अहमस्मि कोऽपि तत्करः, त्वद्गतेनैव चेतसा सहायभूतेन त्वामिमामभिसरन्तीमन्तरोपलभ्य कृपया त्वत्समीपमनेषम् । भूषण-

मिदमस्या” इत्यंशुपटलपाठितध्वान्तकालं तदपितवान् । उदारकस्तु
तदादाय सलज्जं च सहस्रं च ससम्भ्रमं च मामभाषत त्वयैवेयमस्यां निशि
प्रिया मे दत्ता, वाक् पुनर्ममापहृता । तथा हि न जाने वक्तुम् ॥

2. Explain and illustrate the rule relating to the conversion of active into passive voice in the case of verbs governing two accusatives. 8

3. When are the roots कृ, ख्या, विद्, and कृ used in the Ātmanepada? Construct sentences to illustrate your answer. 8

4. State in their order the grammatical operations needed for the conjugation of roots in कृ and विद्. Illustrate your answer with examples. 8

5. Correct or justify four of the following :— 16

(a) पेटकमस्या अनुहरन्ति मातृकञ्च गावः ।

(b) अरे रात्रिविधाकारेस्तत्र ज्ञाते परस्परम् ।

(c) रक्षांसीति पुरापि संश्रुणुमहे ।

(d) पश्चात् उन्मेषति हरिः स्वाङ्गमायच्छमानः ।

(e) सुरापायाः शूद्राः सोमैरपाना दाक्षिणात्याः ।

(f) रूपेण विस्मापयते कुमारी ।

(g) पिपतिषति कुलं, सुमुर्धते श्वा ।

(h) विनयन्तिस्म तद् यो धर्मेषु भिर्विजयश्रमम् ।

6. Fully discuss the grounds which led European scholars to challenge the accuracy of Sayana's interpretation of the Rig-veda. 30

Or,

Write an essay on the philosophy of the Upanishads, with special reference to the growth of the idea of identity of the individual with the world soul.

Or,

Discuss :—‘ By the acceptance of this doctrine (of transmigration) the Vedic optimism, which looked forward to a life of eternal happiness in heaven, was transformed into the gloomy prospect of an interminable series of miserable existences leading from one death to another.’

SANSKRIT.

FOURTH HONOURS PAPER.

Examiners—{ BABU UMACHARAN BANERJEE, M.A.
BABU KASINATH DASS, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Give the characteristics of the style of composition of the 10
Kādambarī and show their bearing upon the literary merit of the work.

2. Write explanatory notes on any two of the following pas- 20
sages:—

(a) स तस्यामवधिताशेषभुवनमच्छतया विगतताम्यचिन्ताभार-
निर्वृतो ह्रीपान्तरागतानेकभूमिपालमौलिमालालालितचरणयुगलो
वलयमिव लीलया भुजेन भुवनभारमुद्धृन्मरुगुरुमपि प्रक्षयो-
पहसद्भिरनेककुलक्रमागतेरसकृदालोचितनीतिशास्त्रनिर्मलमनोभिरलुब्धैः
चिरधेः प्रसुद्धेष्टामाग्यैः परिवृतः सुखमतिचिरमुवास ।

(b) एवं च क्रमेण निर्वर्त्तिताभिषेको विषधरनिर्भोकपरिलघुनौ
धवले परिधाय धौतवाससौ शरदम्बरैकदेश इव जलक्षालनविमलत-
नुरतिधवलजलधरच्छेदश्चिना दुकूलपटपल्लवेन तुहिनगिरिरिव गगन-
सरित्स्रोतसा कृतशिरोवेष्टनः संपादिवपितृजलक्रियो मन्त्रपूतेन तोया-
ञ्जलिना दिवसकरमभिप्रणम्य देवमुहमगमत् ॥

(c) दुर्योधन इधोपलक्षितशकुनिपक्षपातो नलिननाभ इव वन-
मालोपगूढो नवजलधरव्यूह इव नभसि दर्शितोन्नतिरखिलभुवनतला-
वलोकनप्रासाद इव वनदेवतानामधिपतिरिव दण्डकारण्यस्य नायक
इव सर्ववनव्यतीनां सखेव विश्वस्य शाखावाहुभिरुपमुद्येव विश्वगट-
वीमवस्थितो महाझीर्णः शास्त्रमखीकृतः ॥

3. Translate any two of the following passages into English :—

12

(a) अकारणाविष्कतवैरदाहणा-

दसज्जनार्कस्य भयं न जायते ।

विषं महाहेरिव यस्य दुर्यधः

सुमुःसहं संनिहितं सदासुखे ॥

(b) एते हि ह्युक्ताः प्रकृतयो विहंगमविशेषा यथाश्रुतां वाचस्पत्यारयन्तीत्यधिगतमेव देवेन । तत्रापि अजन्मोपान्तसंस्कारानु-
बन्धेन वा पुरुषप्रयत्नेन वा संस्कारातिशय उपजायत इति, नाति-
शितम् ॥

(c) यस्मिन्मनवरतसुगया निहतशेषवनहरिणप्रोत्साहित इव
कृतसौताविप्रलम्भः कनकसुगो राघवमतिदूरं जहार । यत्र च
मेथिलीवियोगदुःखदुःखितो दशवदनविनाशपिण्डो चन्द्रसूर्यादिव
कवचप्रसौ समं रामलक्ष्मणो त्रिभुवनमयं महच्चक्रतुः ॥

4. Give a summary of the argument of Vibhīṣaṇa in support of his advice to Rāvana. 8

5. (a) Explain any two of the following passages in Sanskrit:— 12

(i) कुर्यात्तथा येन जहाति सौतां
विषादनौहारपरीतमूर्तिम् ।
स्थितां क्षितौ शान्तशिखाप्रतानां
तारामिव त्रासकरीं जनस्य ॥

(ii) मत्वा सहिष्णूनपरोपजप्यान्
स्वकानधिष्ठाय जलान्तर्गतान् ।
द्रुमाद्रिबुल्लङ्घ्यजलाप्रवृथ्यान्
वर्द्धत राजा रिपुविग्रहेण ॥

(iii) अनिर्वृतं भूतिषु गूढधैरं
सत्कारकालेऽपि कृताभ्यसूयम् ।
विभिन्नकर्माश्रयवाक् कुले नो
मा ज्ञातिचेलं भुवि कश्चिदभूत् ॥

(b) Give the derivation of the word underlined in (i), change the voice of extract (ii), expound the *samāsa* of the word underlined in the third line of (iii), and comment grammatically on the word underlined in the fourth line of it. 6

6. (a) Translate either of the following passages into English:— 5

(i) तुङ्गा गिरिवरदेहा श्रगमं सलिलं समोरगो रसहारी ।
अहिमो रविकिरणगणो माया संसारकारणं ते परमा ॥
(ii) जवणजलप्रवस्रसं तरुफलसम्पत्तिरुद्वेहायासं ।
जङ्गलतोरणवारणमादृतं समरलालसं रामबलं ॥

(b) Explain any peculiarity of diction in (i) by reference to some 2
of the words used.

7. Translate the following passages into Sanskrit :—

25

(a) And as he was going along through a forest, which lay on his road, a lion charged him, and the hero easily cut it in two with a stroke of his sword. And when a wild elephant came at him trumpeting, he circled round it and cut off with his sword its trunk and feet, and stripped it of its jewel, and killed it. And alone he dispersed the hosts of bandits like lotuses, and trampled them as the elephant, lord of the forest, tramples the beds of white water-lilies.

(b) One day as he was wandering through the forest intent on business, a great storm arose that shook the trees and seemed about to uproot them. In a moment dense masses of clouds appeared on the sky, with flashes of lightning playing amidst them, presenting the aspect of a sea covered with merchant boats and vessels. He of a hundred sacrifices having entered the clouds with a large supply of rain, in a moment the earth became flooded with water.

SANSKRIT.

FIFTH HONOURS PAPER.

Examiner—PANDIT ASUTOSH SASTRI, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English any two of the following extracts :—

16

(a) चित्रं देवानामुदगादनी कं
चक्षुर्मित्रस्य वरुणस्याग्नेः ।
आप्ता ह्यावापृथिवी अंतरिक्षं
सूर्य आत्मा जगतस्तस्युषः ॥
सूर्यो देवीमुषसं रोचमानं
मर्यो न योषामभ्येति पश्चात् ।
यत्रानरो देवयंतो युगानि
वितन्वते प्रति भद्राय भद्रम् ॥

(b) उचो वाजेन वाजिनि प्रचेताः
सोमं जुषस्व गृणतो मघोनि ।
पराणी देवि युवतिः पुरंधि-
रनु व्रतं चरषि विश्ववारे ॥

उषो देव्यमर्षा वि भहि
 सुंदरया सुवृता इरयति ।
 आ त्वा वहंतु सुयमर्षो अशा
 हिरण्यवर्षा प्रयुपाजसो ये ॥

(a) अष्टावद त्वर्षं गीर्भिराभिः

सुहि पर्जन्यं नमसा विवासे ।
 कनिष्कहृद्यभो जौरदन्तू
 रेतो वधायोषधीषु गर्भसु ॥
 रथोक् कश्यासां अभित्तिप-
 न्नाविर्दूतान् कृणुते वर्ष्वांश्च अह ।
 दूरालिहस्यं सूनया उदीरते
 यत्पर्जन्यः कृणुते वर्ष्वांश्च नभः ॥

2. Explain in Sanskrit, adding notes on all words and grammatical forms not used in Classical Sanskrit, any five of the following extracts:—

(a) ये शुभाः द्यौरवर्षसः सुसुत्रासो रिशादसः ।
 सुसुत्रिण्य आ गहि ॥

(b) विष्वक्द्राणि हिरण्यं वरुणो वस्त निर्णजम् ।
 परि स्वश्रोत्रि वेदिरे ॥

(c) प्र तव्यसौ नव्यसो धीतिमय्ये
 वाचो मतिं सहसः सूनवे भरे ।
 अर्पा नपाद्यो वसुभिः सह प्रियो
 होता प्रथिव्यां न्यसौ वदुत्वियः ॥

(d) प्र विष्णावे शूषमेतु मन्म
 गिरिक्षितं उरगायाय वृष्णे ।
 य इदं दीर्घं प्रयतं सुधस्य-
 नेको विममे त्रिभिरित्पदेभिः ॥

(e) यः शम्बरं पर्वतेषु क्षियतं
 चत्वारिंशां शरद्वान्विदत् ।
 ओजायमानं यो अहि जघान्
 दानुं शयानं स जनासु ब्रह्मः ॥

(f) रथं हिरण्यवंधुरमिंद्रवायू स्वधरम् ।
 आहि व्याधो दिविसृष्टम् ॥
 रथेन प्रयुपाशं वा द्वासांसुपं गच्छतम् ।
 इंद्रवायू इहागतम् ॥

(g) अमू ह्येवः सविता वंद्यो नु न
 इदानीमग्रे उपवाच्यो नृभिः ।
 वि यो रक्षा भजति मानवेभ्यः
 श्रेष्ठं नो अत्र द्रविष्णुं यथा वधत् ॥

(h) यजमानाय सुवृत्त आग्ने सुवीर्यं वद ।
 देवेरा सति बर्हिषि ॥
 प्र यच्च एत्वानुषगद्या देव्यचक्षसः ।
 स्तुणीत बर्हिषासदे ॥

3. Rewrite in Classical Sanskrit:—

5

अतो विद्वान्यद्भुता चिकित्वा अग्निं पश्यति ।
 कृतानि या च कर्त्ता ॥ *
 स नो विशाहा सुक्रतु रादित्यः सुपथाकरत् ।
 प्र ण आयूषि तारिषत् ॥

4. Give the forms used in Classical Sanskrit for, and write grammatical notes on, any seven of the following:—

मिनीमसि, आभत, अग्नि, अवस्यु, देवयु, सुसुग्धि, सुभाय, दाधार .

5. Write explanatory notes on any six of the following words:—

6

गोपीय, क्रतु, व्रत, पत्न्या, यशस्, धृत, अग्ना, वृषभ .

6. Derive the word असुर, and discuss its meanings in Vedic, Avestic, and Classical Sanskrit literatures.

7. Mention the characteristics of the various R̥gvedic Sun-gods and Rain-gods.

12

8. Illustrate (a) any three of the peculiarities of Vedic सभि, and (b) the formation of Vedic infinitives.

8

SANSKRIT.

SIXTH HONOURS PAPER.

Examiner—BABU BRAJALAL CHAKRABARTI, M.A., B.L.

Candidates are required to give their answers in their own words
as far as practicable.

The figures in the margin indicate full marks.

Answer any FIVE questions from each group.

A. GRAMMAR.

1. Discuss Pāṇini's definitions of the accusative case, together with Vārttika's additions to the same. 12

2. Correct or justify *six* of the following :— 12

(a) मास मासयति वेवदत्तम् ।

(b) तृणमभ्यवक्षरयति सैन्धवान् ।

(c) अध्ययनं निमित्तं वसति ।

(d) मनुष्येभ्यो ब्राह्मणः श्रेष्ठः ।

(e) युद्धाय सन्नहते ।

(f) प्रातः कमनीयम् ।

(g) वृक्षेभ्यः फलं चिनोति ।

(h) स्तोकं पाठः ।

3. Define उपसर्जन, and discuss the correctness of the forms :— 12

निष्कोशाश्वि, पञ्चखुटी, and अर्द्धपिप्पली .

4. Quote rules which are specially needed in the formation of *six* of the following :— 12

सुकेशभाय्या, पूर्वरात्रः, ह्यहमियः, दीर्घाहो, पुण्याहम्,
कालायसम्, प्रपणः, सुवर्णालङ्कारः .

5. Discuss *three* of the following :— 12

(a) “अविग्रहो नित्यसमासः, अस्वपदविग्रहो वा ।”

(b) “समासश्चतुर्थेति प्रायोवाङ् ।”

(c) “पूर्वपदार्थप्रधानोऽव्ययीभावः, उत्तरपदार्थप्रधानस्तत्पुंसः,
इत्यपि प्राचा प्रवादः प्रायोऽभिप्रायः ।”

(d) “हरि हि अग्नि” इत्यलौकिकं विग्रहवाक्यम् । अत्र निपा-
तेनाभिहितेऽप्यधिकारखे वचनसामर्थ्यात् समसौ ।”

6. Explain and illustrate *three* of the following :—

12

- (a) पूरणगुणवृद्धितार्थसद्व्ययतयसमानाधिकारयेन ।
- (b) तद्धितार्थोत्तरपदसमाहारे च ।
- (c) अनेकमन्यपदार्थे ।
- (d) वृद्धिनिमित्तस्य च तद्धितस्यारक्तविकारे ।

7. Give the *विग्रहवाक्य*'s in *six* of the following, naming the compound in each case :— 12

द्वयकूला, निस्त्रिंशः, द्वित्राः, द्विदशाः, उपदशाः, पञ्चनोः,
द्वयश्च, and अश्वक्रीती .

B. RHETORIC.

1. Discuss "तदेतत् काव्यसर्वस्व समाधिर्नाम यो गुणः". 8
2. Give Daṇḍin's definition of रूपक, and name and illustrate some of the important varieties of the figure as noticed by the writer. 8
3. Discuss the figures of rhetoric in *two* of the following :— 8

(a) प्रतिकूलतामुपगते हि विधौ विफलत्वमेति बहुसाधनता ।

अवलम्बनाय दिनभर्तुरभून्नपतिष्यतः करसहस्रमपि ॥

(b) स्पृष्टास्ता नन्दने श्रद्धाः क्लेशसम्मोगलालिताः ।

सावद्यं पारिजातस्य मञ्जुष्यो यस्य सेनिकैः ॥

(c) मातलिस्तस्य माहेन्द्रमासुभोच तनुच्छदम् ।

यत्रोत्पलदललोच्यमस्त्राख्यापुः सुरद्विषाम् ॥

(d) निवृत्तव्यालसंसर्गो निषर्गमधुराश्रयः ।

अयमम्भोनिधिः कष्टं कालेन परिहृष्यते ॥

4. Explain and illustrate *one* of the following :—

8

(a) अङ्गान्निभावावस्थानं सर्वेषां समकक्षता ।

इत्यलङ्कारसंचर्तुर्लक्षणीया द्वयो गतिः ॥

(b) शेषः सर्वेषु पुष्पाति प्रायो वक्रोक्तिषु श्रियम् ।

भिन्नं द्विधा स्वभावोक्तिर्वक्रोक्तिश्चेति वाङ्मयम् ॥

5. Reproduce in your own language, in Sanskrit or English, Daṇḍin's observation on रौति or style. Support your answer with examples from your texts. 8

6. Describe the five *sandhis* as mentioned by Viśvanātha, and illustrate the same by references to the plot of *अभिज्ञानशकुन्तलम्* . 8

7. Explain the different kinds of *सर्वोपरोप*'s mentioned by Viśvanātha, and illustrate the same with examples from your text-books. 8

SANSKRIT.

Paper-setters— { MAHAMAHOPADHYAYA KALIPRASANNA BHATTACHARYYA, M.A.
BABU BRAJALAL CHAKRABARTI, M.A.
BABU ABINASHCHANDRA GUHA, M.A., B.L.

FIRST PASS PAPER.

Examiners— { BABU JOGENDRANATH BHATTACHARYYA, M.A.
BABU BHAGABATKUMAR GOSWAMI, M.A.
BABU SURENDRANATH BHATTACHARYYA, M.A.
BABU BIHARIBAL BANERJEE, M.A.
BABU KASINATH DAS, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Give an outline of the conduct of the student towards his teacher 8
as enjoined by Manu.

Or,

State the different functions that Manu has assigned to the different castes.

2. Explain the idea contained in any three of the following passages :— 18

(a) तस्य सोहर्निश्रयान्ते प्रसुप्तः प्रतिबुध्यते ।

प्रतिबुद्धश्च यजति मनः सदसदात्मकम् ॥

(b) तेषु सत्यवर्त्तमानो गच्छत्यमरलोकताम् ।

यथासङ्कल्पितांश्चेह सर्वान् कामान् समप्नुते ॥

(c) स्वाध्यायेन ब्रतेर्होमैस्त्रैविद्येनेष्यया सुतेः ।

महायज्ञैश्च यज्ञैश्च ब्राह्मीयं क्रियते तनुः ॥

(d) एकाक्षरं परं ब्रह्म प्राणायामाः परं तपः ।

वावित्रगास्तु परं नास्ति मोक्षात् सत्यं विशिष्यते ॥

3. Translate any two of the following passages into English :— 10

(a) युगपत्तु प्रलीयन्ते यदा तस्मिन्महात्मनि ।

तदायं सर्वभूतात्मा सुखं स्वपिति निर्दुतः ॥

(b) न तथेतानि शक्नन्ते संनियन्तुमवेवया ।

विषयेषु प्रभुत्वानि यथा ज्ञानेन नित्यशः ॥

(c) वर्मार्थावृत्त्यते श्रेयः कामार्था धर्म एव च ।

अर्थ एवेह वा श्रेयस्त्रिवर्ग इति तु स्थितिः ॥

4. (a) Explain two of the following passages in Sanskrit:—

12

(i) स किंसखा साधु न प्राप्ति योऽधिपं

हिताद् यः सञ्चरते स किम्पुनः ।

सदानुकूलेषु हि कुर्वते रतिं

नृपेभ्यमात्येषु च सर्वसम्पदः ॥

(ii) विधाय रत्नान् परितः परेतरान्

अशङ्किताकारमुपैति शङ्कितः ।

क्रियापदवर्गेऽनुजीवितात्कृताः

कृतज्ञतामस्य ददन्ति सम्पदः ॥

(iii) विजित्य यः प्राज्यमयच्छदुत्तरान्

कुचनकुप्यं वसु वासवोपमः ।

स वस्ववासांसि तवाधुना हरन्

करोति मन्थं न कथं धनञ्जयः ॥

(b) Expound the *samāsas*, and account for the *atmanepada* form of the verbs in extract (i). 4

(c) Parse the word underlined in the first line of (ii), and give the derivation of the word underlined in the second line. 2

(d) Change the voice of extract (iii). 4

5. (a) Translate any two of the following passages into English :— 10

(i) तदलं प्रतिपन्नमुन्नतेः

अवलम्ब्य व्यवसायबन्धनताम् ।

निवसन्ति पराक्रमाश्रया

न विधादेन समं ससृष्टयः ॥

(ii) मदसिक्तमुखैर्हृगाधिपः

करिभिर्वर्त्तयते स्वयं हतेः ।

लघयन खलु तेजसा जगत्

न महानिच्छति भूतिमन्यतः ॥

(iii) अशुरप्युपहन्ति विग्रहः

प्रसुमन्तः प्रकृतिप्रकोपजः ।

अखिलं हि हिनस्ति मूढरं

तरुशाखान्तनिघर्षजोऽनलः ॥

(b) Conjugate the root of the word underlined in (i) in सिद्ध and सुद्ध third person singular. 2

(c) Comment grammatically on the word underlined in (ii), and conjugate the root of it in सुद्ध and सुद्ध third person singular. 5

6. Translate the following passages into Sanskrit :— 25

(a) A king, who desires prosperity, must listen to servants who wish him well, and they must give their lord at the right time useful counsel, even without being asked. So, king, if you feel confidence in me, if you are not angry, and if you do not wish to conceal your feelings from me, and if you are not disturbed in mind by my boldness, I would ask you a certain question.

(b) Soon the sky cleared and became spangled with myriads of stars, presenting the aspect of a magnificent lake smiling with blooming lilies. Beholding the sky cleared of clouds, he cast his eyes on all sides, and seeing that night was already upon him. he began to think—My home is at a great distance from where I am. He then resolved to pass the night under the shade of that tree.

SANSKRIT.

SECOND PASS PAPER.

Examiners— { BABU KOKILESWAR BHATTACHARYYA, M.A.
BABU SURENDRANATH MAJUMDAR, M.A.
BABU MATILAL BHATTACHARYYA, M.A.
BABU SATKARI ADHIKARI, M.A.
BABU KASINATH DAS, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Give, in English, the substance of Durvāsā's curse upon Śakuntalā. 5

Or,

Vasishtha's message to Śitā, 'through Ashtāvakra, as given in Act I of the *Uttaracharita*.

2. (a) Translate into English either of the following groups :— 16

GROUP A.

(i) पातुं न प्रथमं व्यवसति कलं युष्मास्वपिसेषु या
नादत्ते प्रियमख्दनापि भवतां खेहेन या पल्लवम् ।
आद्ये वः कुक्षमप्रसूतिवमये यद्या भवत्युत्सवः
वेयं याति शकुन्तला पतिपुत्रं सर्वैरनुचायताम् ॥

- (ii) उपायानां भावाद्विरतविनोदव्यतिकरो
विमर्शवैराग्या जगति जनितात्यन्ततरसः ।
वियोगो मुग्धाद्याः स खलु रिपुघातावधिरभूत्
कथंतुष्णीं सद्यो निरवधिरयं त्वप्रतिविधः ॥

GROUP B.

- (i) नैतद्वित्रं यदयमुदधिष्यामसीमां धरित्री-
मेकः कूरक्षां नगरपरिघप्रांशुबाहुर्भुनक्ति ।
प्राशंसन्ते समितिषु सुराः तद्वैरा हि दैत्ये-
रस्याधिष्णे धनुषि विजयं पोरुहूते च वज्रे ॥
- (ii) प्रियप्राया वृत्तिर्विनयमच्छणो वाचि नियमः
प्रकृत्या कल्याणी मतिरनवगीतः परिचयः ।
पुरा वा पश्चाद्वा तदिकमविपर्ययांसितरसं
रहस्यं साधूनामनुपदि विबुधं विजयते ॥

(b) Comment grammatically on the word अपीत . Would it be 2+2 incorrect to say सख्यप्रिया instead of प्रियसख्या in (i) A ? Give reasons for your answer.

(c) Derive any two of the following :—बवस्रति in (i) A, समिति in (i) B and विपर्ययांसि in (ii) B. Parse either वीराणां in (ii) A, or वृत्तिः in (ii) B. Explain the formation of either मुग्धाद्या in (ii) A, or उदधि in (i) B.

(d) Change the voice of अनुज्ञायताम् in (i) A, showing the corresponding change in the *śloka*.

(e) Account for परस्मैपद in भुनक्ति, or आत्मनेपद in प्राशंसन्ते, and 2+1 give the derivative meaning of the base of पोरुहूते in (i) B.

(f) In what sense is the word रहस्य used here, and what is its ordinary meaning ?

3. (i) ययात्तेरिव शर्मिष्ठा भर्तुर्बहुमता भव ।
सुतं त्वमपि सखाजं चैव प्रसमवामुहि ॥
- (ii) त्रिज्योतसं वहति यो भोगनप्रतिष्ठां
ज्योतींश्च वर्तयति च प्रविभक्तारप्रिसः ।
तस्य द्वितीयहरिविज्ञानिकमकं
वायोरेमं परिवहन् वहति सार्गसु ॥

(a) Explain briefly, in English, the allusions in *one* of the above 2
extracts.

(b) Account for the case-ending in भर्तुः in (i). Why is Gangā 3
called विद्योतस्? Expound the *samāsas* in द्वितीयहरिविज्ञाननिकामन्त्रम् .

4. Translate *either* of the following into English:— 3

(a) उग्रलिङ्गदम्भकप्रला मित्रा परिश्रुतकृत्वा मोरा ।

श्रीहरिप्रपन्नपत्ता मुप्रति अस्तु विश्व लदाग्रो ॥

(b) श्रद्धेयिषि जे विनिन्दिष बहु ये कम्म विवज्जवीप्र ।

पहुमालककम्मदालुबे अणुकांतामिदुए वि शोत्तिए ॥

5. (a) Refer to the context, and give, in your own Sanskrit, the 12
substance of the *ślokas* in *either* of the following groups:—

GROUP A.

(i) रम्याणि वीक्ष्य मधुरांश्च निश्चय्य शब्दान्

पर्यस्तुकीभवति यतस्तुखितोऽपि जन्तुः ।

तच्छेत्तुं शरति नूनमयोधपूर्वम्

भावास्थिराणि जननान्तरसौदृशानि ॥

(ii) अन्वेष्टव्यो यदसि भुवने भूतनाथः शरयो

सामन्विष्यन्निह वृषलकं योजनानां शतानि ।

क्राव्या प्राप्तेः स इह तपसः सम्प्राप्तोऽन्यथाचेत्

क्रापोध्यायाः पुनरुपगमो दण्डकार्यां वने तः ॥

GROUP B.

(i) महाभागः कामं नरपतिरभिप्लव्यतिरहो

न कश्चिद्वर्त्तमानमप्यमपेक्षुष्टोऽपिभक्षते ।

तथापीदं शस्त्रत्परिचितविविक्तेन मनसा

जनाकीर्त्तं मन्ये हुतदहपरीतं वृद्धमिव ॥

(ii) सुहृदिव प्रकटय्य सुखप्रदः प्रथममेकरवाममुज्ज्वलताम् ।

पुनरकाङ्क्षविवर्तनदाहसो विधिरहो विभिन्नद्वि मनोरञ्जसु ॥

(b) In what sense is the word *नाम* used in भावविपश्चि ? Give 4
other significations of the word. Expound and name the *samāsa* in
जन्मान्तरसौदृशानि in (i) A.

(c) Derive **अभिव्यक्तम्** and give the past participle (**कृत**) and **सुहृत्** 5
third person singular forms of the root. What is the meaning of **भूत**
in **भूतनाथ**? Derive **अरक्ष** in (ii) A.

(d) Parse **कामम्**; in what sense is the word used here? Derive 5
विविक्त, and give *either* the **कृत्** or the **सृज** form of the root, in the
third person singular. Derive **अपश्य** in (i) B.

(e) Explain the formation of **सुहृद्**, and expound the *samāsas* 5
in **असाक्षविबर्णनदाहवः**. Derive **विप्रिमहि**, and give the first person
singular forms of the root in **होत** and **हित**. What is the nominative
singular form of the base of **मनोवजम्** in (ii) B?

6. Translate *any five* of the following extracts into Sanskrit :— 25

(a) Long ago, in a city called Kuṇḍina, a certain Brāhmaṇa teacher had seven pupils. Then that teacher, under pressure of famine, sent those pupils to ask his father-in-law, who was rich in cows, to give him one.

(b) Once on a time two men, a Brāhmaṇa and a Chāṇḍāla, remained fasting for some time on the banks of the Ganges. Of these two, the Brāhmaṇa being pained by hunger, and seeing some Nishādas come that way, bringing and eating fish, thought within himself.

(c) Indra had a beloved son, named Jayanta. Once on a time, when he, still an infant, was being carried about in the air by the celestial nymphs, he saw some princes in a wood on the earth, playing with some young deer.

(d) There is a monarch of mountains famous on the earth under the name of Mandara; in whose groves all the gods roam. Its highest peaks form the pleasure-gardens of Śiva, and he loves it more than Mount Kailāsa.

(e) At present the hermit Śveta is on the other side of the eastern ocean, in a grove of the ascetics beyond the river Taranginī. That grove cannot be invaded by Death, so I will take you and place you there. But you must not return to this side of the Taranginī.

(f) Once on a time, on the twelfth day of the month, the king, after devotedly worshipping Viṣṇu, saw in a dream a prince of noble appearance approach him. But when he woke up, he, to his misfortune, could not see him any more.

SANSKRIT.

THIRD PASS PAPER.

Examiners—{ BABU DEBENDRAKUMAR BANERJEE, M.A.
 { BABU BHABESCHANDRA BANERJEE, M.A.
 { BARU HARIHAR BANERJEE, M.A.
 { PANDIT ASUTOSH SASTRI, M.A.
 { BABU KASINATH DAS, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English any three of the following extracts:— 30

(a) न ह वा अपुरोहितस्य राक्षो देवा अन्नमश्नन्ति । तस्माद्राक्षो यक्ष्यमाणो ब्राह्मणं पुरोदधीत देवा मेऽन्नमश्नुवन्ति । अग्नौ वा एष स्मर्यान् राक्षोह्वरते यत् पुरोहितम् । तस्य पुरोहित एवाहवनीयो भवति आया गार्हपत्यः पुत्रोऽन्वाहार्यपचनः । स यत् पुरोहिताय करोत्याहवनीयस्य तज्जुहोत्यथ यज्वायाये करोति गार्हपत्य एव तज्जुहोत्यथ यत् पुत्राय करोत्यन्वाहार्यपचन एव तज्जुहोति । त एवं शान्ततनवोऽभिभुता अभिप्रीताः स्वर्गं लोकमभिवहन्ति क्षत्रं च वलं च राष्ट्रं च विश्वं च । (वा अपुरोहितस्य, वा एष = वे अपुरोहितस्य, वे एषः । आहवनीय, गार्हपत्य, अन्वाहार्यपचन, the three sacrificial fires of those names.)

(b) अन्नमग्निं त्रेधा विधीयते । तस्य यः स्वविष्टो घातुस्तत् पुरीषं भवति यो मध्यमस्तन्मांसं योऽक्षिष्ठस्तन्मनः । आपः पीतास्त्रेधा विधीयन्ते । तासां यः स्वविष्टो घातुस्तन्मुत्रं भवति यो मध्यमस्तद्धोहितं योऽक्षिष्ठः स प्राणः । तेजोऽग्निं त्रेधा विधीयते । तस्य यः स्वविष्टो घातुस्तदस्थि भवति यो मध्यमः स मज्जा योऽक्षिष्ठः स वाक् । अन्नमयं हि सोम्य मन आपोमयः प्राणस्तेजोमयौ वागिति । (होहित, blood. सोम्य vocative case.)

(c) पुरुषं सोम्योत ह्यस्युहीतमानयन्त्यपाहर्षीत सोमसकार्हीत परब्रह्मणो तपतेति । स यदि तस्य कर्ता भवति ततश्चावृत्तमात्मानं कुर्वते । सोऽवृत्ताभिरव्योऽवृत्तेनात्मानमन्तर्धीय परं तं प्रतिपृच्छति ।

स इच्छतेऽप्य इत्यन्ते । अथ यदि तस्याऽकर्ता भवति तत एव सत्यसा-
त्त्वात् कुर्वते । स सत्याभिवन्दः सत्येनात्मानमन्तर्धाय परशुं तप्तं
प्रतिपुच्छाति । स न इच्छतेऽप्य मुच्यते । (सोम्य, vocative case उत्त, or.)

(d) एवं हि दृश्यते लोको । सूत कयाचिदाकृत्या युक्ता पिच्छो
भवति । पिच्छाकृतिमुपसृष्टा घटिकाः क्रियन्ते । घटिकाकृतिमुपसृष्टा
कुच्छिकाः क्रियन्ते । तथा सुवर्णं कयाचिदाकृत्या युक्तं पिच्छो भवति ।
पिच्छाकृतिमुपसृष्टा रुचकाः क्रियन्ते । रुचकाकृतिमुपसृष्टा कटकाः
क्रियन्ते । कटकाकृतिमुपसृष्टा स्वस्तिकाः क्रियन्ते । पुनरावृत्तः
सुवर्णपिच्छः पुनरपरयाकृत्या युक्तः खडिराङ्गारसदृशे कुच्छले भवतः ।
आकृतिरन्या चान्या च भवति द्वयं पुनस्तथैव । (घटिका,
कुच्छिका = घटी, कुच्छी ; or, their diminutives. रुचक, a necklace.
स्वस्तिक, another kind of ornament ; or, probably an amulet.)

(e) येषां संघाता अर्थवन्तोऽवयवा अपि तेषामर्थवन्तः । येषां
अवयवा अर्थवन्तः समुदाया अपि तेषामर्थवन्तः । तद्यथा । एकश्चक्षु-
ष्मान्दर्शने समर्थस्तत्समुदायश्च शतमपि समर्थम् । एकश्च तिलसैलदाने
समर्थस्तत्समुदायश्च कार्यपि तैलदाने समर्थः । येषां पुनरवयवा
अनर्थकाः समुदाया अपि तेषामनर्थकाः । तद्यथा । एकोऽन्धो दर्शने
ऽसमर्थस्तत्समुदायश्च शतमप्यसमर्थम् । एका च विकता तैलदाने-
ऽसमर्थी तत्समुदायश्च खारौशतमप्यसमर्थम् । (खारौ, a measure of
solids and liquids.)

(f) दृग्मान्नाहमब्रवीमेहि चापि तां नयेयं त्वत्प्रियावचमिति
त्रिचतुराणि पदान्युदचक्षुः । आपतच्च ह्रीपिकासोऽपरिबुध्यमान-
तिमिरभारं यद्विकृपाक्षपाणि नागरिकवृत्तमनक्षुः । इद्वैव प्रवेपमानां
कन्यकामवर्गं भङ्गं मा भेषीः । अस्त्ययमविद्वितीयो मे बाहुः । अपि
तु चतुरयमुपायस्तद्वेषेक्षया चिन्तितः । अयेऽहं भावितविषवेग-
विक्रियः । त्वमाप्यसौ वाच्या त्रिणि वयमिमां पुरौ प्रविष्टाः । इदृश्च
ममेव नायको दर्शकरोबासुप्तिन् सभापुङ्गवोऽहम् । यदि वः कश्चिन्मन्त्र-
विद् कृपाणुः स एनमुज्जीवयन्मम प्राणानाहरेदनाथाया इति ।
(वर्णीकर, a snake.)

(g) मयापि तत्पितृव्यसमसाकर्णं पर्यभ्रुया सोऽभिहितः सोऽप्य किं तव गोपायित्वा । यस्तस्य सुतो यस्तकन्यया वैवस्य राजवाहनस्य पादबुध्वार्थं देव्या वसुमत्या हस्तन्यासः कृतः सोऽहमस्मि । अस्यामि सहस्रमपि सुभटानामुदायुधानां हस्ता पितरं मोचयितुम् । अपि तु संकुले यदि कश्चित् पातयेत्तदङ्गु शस्त्रिकां सर्व एव मे यत्रो भक्षानि हुतमिव भवेदत्यनवधितववन एव मयि महानाग्नौविषः प्राकारारण्य-
जोदेरयच्छिरः । तमहं मल्लोषधश्लेनाभिपृच्छ पूर्वभद्रमद्रवं भद्रं विद्मं नः समौहितम् । (शस्त्रिका, diminutive of शस्त्र .)

2. Correct any five of the following passages, pointing out the 15 nature of the errors in each case :—

(a) अस्मैऽस्मिन्ने शिवानि मयि दयस्य ।

(b) ते सुखं साम्प्रतं दृष्ट्वा मे हर्षं उपजायते ।

(c) यमस्य प्रातस्तुष्यथेऽपण्यासं वैव इदानीं पुरतोऽस्मत्तिष्ठति ब्रह्मचारी ।

(d) अथ च तर्क्यामेव प्रवव्राज हित्वा शरं पुनश्च धनानि च यहाणि च ।

(e) ततोऽहमर्धरात्रौ प्रवृद्धो नारीं ददर्शं चरन्तो विशाखाक्षौम् ।

(f) अहो चित्रमिन्द्रकासम् । एका सोदिष्टा पूषिका अतानि पद्यानि भवति अतानि च महान्ति पद्यान्येका पूषिका जायन्ते ।

(g) धिक् त्वं पाप । बहिर्गृहस्य तिष्ठ । नैनहिमः ।

(h) ननु कतमायां दिव्यस्तमेति सूर्यः । पश्चिमस्याम् । अथ कतमायां पुनरुदेत्यसौ । पूर्वायामेव । न हि ग्रहपतिर्विज्ञानी ग्रहनक्षत्र-
तारकानामीहे ।

3. Compound the underlined words in any four of the following 6 sentences :—

(a) तत्राहं कश्मिरेषु पञ्च बहु वा विवशान्यवात्सम् ।

(b) अन्धं तमः प्रविशन्त्यात्महनः ।

(c) अहमहनि भूतानि प्रयानि यममन्त्रिरहम् ।

(d) कस्य कस्य दिवं च प्रचिदीं च सुकति ।

(e) वर्षं त्वं पुनरुदेत्यसौ ।

(f) वर्षां मातृव्यामपत्यं वेदोऽसुरयुद्धे देवसेनां नयति ।

4. Change the voice in the following sentences:—

4

(a) व सुधीर्भवेत् । (b) अक्षां ग्रामं वहति । (c) आचार्यो
माणवकं धर्मं शक्ति । (d) आचार्यो माणवकं धर्मं बोधयति ।

5. Decline the pronoun चद् in the nominative and accusative 6
cases, masculine, feminine, and neuter.

6. Give the लृट्, third person singular (active, or both active and 5
middle, as the case may be), of any five of the ten typical verbs: भू, चद्, ऊ, दिद्, दु, तुद्, वध, तन, क्रौ, and चुर .

7. Derive fully any four of the following forms:—

4

अकारि । राजसूयम् । प्रियः । असूर्यम्पथा । पुत्रम् ।
अनूचानः । कीर्तिः । यावज्जीवम् । अरघ्या । पौनम् ।

8. Discuss the historical basis of the Mahābhārata epopee. What 10
Vedic traditions have been preserved in it ?

Or,

Give an account of the several recensions of the Mahābhārata and
of the Rāmāyaṇa.

9. Sketch briefly the history of the grammatical literature in 10
Sanskrit.

Or,

Trace the origin and development of the Sanskrit drama.

10. Write short notes on the following authors:— Patañjali; 10
Śabarasvāmin; Śaṅkarācārya; Vācaspatimiśra; Mādhavācārya.

PALI.

Paper-setters— { MAHAMAHOPADHYAYA DR. SATISCHANDRA
(Pass and Vidyabhushan, M.A., Ph.D.
Honours). { BABU REBATINATH CHATTERJEE, M.A.
BABU SAILENDRANATH MITRA, M.A.

FIRST HONOURS PAPER.

Examiner—MAHAMAHOPADHYAYA DR. SATISCHANDRA VIDYA-
BHUSHAN, M.A., Ph.D.

Candidates are required to give their answers in their own words
as far as practicable.

The figures in the margin indicate full marks.

1. (a) Why is the *Khuddaka Pāṭha* so called ? 2
(b) What are the thirty-two constituent parts of the body ? 8
Name them in Pāli as well as in English.

2. State all that are mentioned in the *Maṅgala Sutta* as being 8
maṅgalaṃ uttamam (the greatest good).

3. Translate two of the following into English :—

12

(a) *Sahāvassa dassana-sampadāya*
tey'assu dhammā jahitā bhavanti |
sakkāyaditthi vicikicchitañca
sīlabbatam vā pi yadatthi kiñci ||
catūha'pāyehi ca vippamutto
cha cābhiñhānāni abhabbo kātum |
Idam pi saṅghe ratanam paṇitam |
etena saccena suvatthi hotu ||

(b) *Na paro param nikubbetha*
nātimaññetha katthaci nam kiñci |
vyārosanā paṭighasaññā
nāññamaññassa dukkham iccheyya ||
Mātā yathā niyaṃ puttam
āyusā ekaputtam anurakkhe |
evam pi sabbabhūtesu
mānasam bhāvaye aparimāṇam ||

(c) *Na hi ruṇṇam vā soko vā*
yā c'āññā paridevanā |
na taṃ petānam atthāya
evam tiṭṭhanti nātayo ||
Ayañca kho dakkhiṇā dinnā
saṅghamhi suppatitthitā |
digharattam hitay'assa
thānaso upakappati ||

4. (a) Write historical notes on *Dhammapada* as a canonical work 4
of the Buddhists.

(b) Give a summary of either the *Paṇḍitavagga*, or the *Ara-*
hantavagga in English.

5. Translate into English three of the following :—

12

(a) *Aññā hi lābhūpanisā aññā nibbāṇagāminī |*
evam etam abhiññāya bhikkhu Buddhassa sāvako |
sakkāram nābhinandeyya vivekamanubrūhaye ||

(b) *Māse māse sahasena yo yajetha satamsamam |*
ekañca bhāvitattānam muhuttam api pūjaye |
sā yeva pūjanā seyyo yañce vassasatam hutam ||

(c) *Māppamaññetha pāpassa na mantam āgamiṣṣati |*
udabindunipātena udakumbho pi pūrati |
pūrati bālo pāpassa thokathokam pi ācinam ||

(d) *Dhīrañca paññañca bahussutañca*
dhorayhasīlam vatavantamariyam |
taṃ tādīsam sappurīsam sumedham
bhajetha nakkhattapatham va candimā ||

6. Give the substance of three of the following in English :—

(a) *Porāṇametam Atula netam ajjatanāṃmiva |*
nindanti tuṇhimāsinam nindanti bahubhāṇinam |
mitabhāṇinampi nindanti natthi loke anindito ||

(b) *Yassa cetam samucchinnam mūlaghaccaṃ samūhatam |*
sa vantadoso medhāvi sādhurūpo ti vuccati ||

- (c) *Yogā ve jāyate bhūri ayogā bhūrisaṅkhayo |*
etaṁ dvedhāpathaṁ tiatvā bhavāya vibhavāyaca |
tathattānaṁ niveseyya yathā bhūri pavaddhati ||
- (d) *Vanāṁ chindatha mā rukkhaṁ*
vanato jāyate bhayaṁ |
chetvā vanaṁca vanathaṁca
nibbanaṁ hotha bhikkhavo ||
- (e) *Etaṁ dalhaṁ bandhanamāhu dhīrā*
ohāriṇaṁ sithilaṁ duppamuṇḍaṁ |
etampi chetvāna paribhajanti
anapekkhino kāmasukhaṁ pahāya ||

In (a) analyse the sandhi in *netam* and derive *āsinam*. In (b) derive *mūlaghaccaṁ*. In (c) conjugate the root of *jāyate* in the aorist (*ajjatanī* third person in all the numbers. In (d) conjugate the root of *chindatha* in the preterite (*parokkhā*) third person singular number. In (e) derive *ohāriṇaṁ*. Is there any alternative form of *chetvāna* ?

7. Translate the following into English :—

30

- (a) *Ete haṁsā pakkamanti vakkāṅgā bhayameritā |*
harittaca hemavaṇṇa tvaṁca naṁ avahiyasi ||
ete bhutvā pivitvā ca pakkamanti vihaṅgamā |
anapekkhamānā, vakkāṅgā, tvaṁ ñev' eko upāsasi ||
ohāya sakunā yanti, kiṁ eko avahiyasi ||
Rājā me so dijo mitto sakhā pānasamo ca me |
n'eva naṁ vijahissāmi yāva kālassa pariyāyaṁ ||
- (b) *Paṁko ca kāmā palipo ca kāmā*
manoharā duttarā maccudheyyā,
etasmim paṁke palipe vyaṣaṇṇā
hinattarūpā na taranti pātaṁ ||
Ayaṁ pure luddaṁ akāsi kammaṁ,
svāyaṁ gahito, na hi mokkh' ito me,
orundhiyā naṁ parirakkhissāmi,
māyaṁ puna luddaṁ akāsi kammaṁ.
- (c) *Aditthapubbaṁ disvāna macco maccubhayaddito*
vyamhito nābhivādeti, na idaṁ paṇṇavatāṁhiva.
Na c'amhi vyamhito nāgi na ca maccubhayaddito,
na vajjho abhivādeyya vajjhaṁ va nābhivādaye.
Kathaṁ no abhivādeyya abhivādāpayetha ve
yaṁ naro haṇtum iccheyya taṁ kammaṁ na upapajjati.

PALI.

SECOND HONOURS PAPER.

Examiner—MAHAMAHOPADHYAYA DR. SATISCHANDRA VIDYABHUSHAN, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Identify the following names and say in what connections they are used in the Milindapañha:—*Alasanda*, *Devamantiya*, and *Anantakāya*. Write historical notes on the last two. 9

2. Discuss the authorship of the Dhammapada-atthakathā, justifying your conclusion by evidence based on the language of the text. 11

3. Translate *any two* of the following extracts into English, adding notes on the words italicized:— 20

(a) Yathā mahārāja kūtāgārassa yā kāci gopānasiyo sabbā tā kūtāgamā honti kūtāninnā kūtāsamōsaraṇā, kūtān tāsam aggam akkhāyati, evam eva kho mahārāja ye keci kusalā dhammā sabbe te samādhīpamukhā honti samādhininnā samādhīponā samādhīpabbhārā ti. Yathā mahārāja keci rūjā caturāṅginiyā senāya saddhim saṅgāmam otareyya, sabbā va senā, hatthi ca assā ca rathā ca patti ca, tappamukhā bhavēyyum tanninnā tappoṇā tappabbhārā, tam yeva anupariyāyeyyum, evam eva kho mahārāja ye keci kusalā dhammā sabbe te samādhīpamukhā samādhininnā samādhīponā samādhīpabbhārā.

(b) Tena kho pana samayena āyasmā Nāga-ena samanagana-parivuto saṅghī gaṇi gaṇācariyo nāto yasassi sādhusammato bahujanassa paṇḍito byatto medhāvī nipuṇo viññū vibhāvī vinito viśrādo bahussuto tepitako vedagū pabhinna-buddhimā āgatāgamo pabhinna-paṭisambhido navaṅgasatthusaṇṇa-pariyattidhāro pāramippatto jinavacane dhammatthadesanā pativedha-kusalo akkhaya-avicitra-paṭi-bhāno citrakathī kalyāṇavākkaraṇo durāsādo duppasāho duruttaro durāvaraṇo dunnivārayo gāma-nigama-rājadhānīsu cārikaṃ cāramāno anupubbena sāgalanagaram anuppatto hoti.

(c) Atha kho Milindo rājā mahisaparivārito viya accho, nāgā-nubaddho viya maṇḍūko, saddulānubaddho viya migo, ahigunthika-samāgato viya pannago, majjāsasamāgato viya unduro, bhūtavajja-samāgato viya piśāco, Rāhumukha-gato viya cando, pannago viya pelantaragato, sakuṇo viya pañjarantaragato, maccho viya jālan-taragato, vāḷavanam anuppatto viya puriso, bhūto ubbiggo utra-gato samviggo lomahatthajāto vimāṇso dummano bhantacitto vipari-natamāṇaso: mā maṃ ayaṃ jano paribhavati dhitim upatthapetvā Devamantiyaṃ etad avoca.

4. Derive *samosaraṇū*. Expound the *samāsa* in “dhammatthadesanā-pativedha-kusalo” and “bhūtavajjasamāgato.” Explain *āga-tāgamo*. 5

5. “Iti pubbe mahārāja sabhena sabham sabbathā sabham avijjā nāhosi.”—Explain clearly. How would you reconcile this statement of Nāgasena with the Paṭiccasamuppāda? Illustrate your answer by a diagram. 10

6. Answer in your own Pāli the question involved in one of the following:—

(a) Bhante Nāgasena, kātihi ākārehi sati uppajjati.

(b) Bhante Nāgasena, sakkā imesaṃ dhammānaṃ ekatobhāvaṃ gatānaṃ vinibbhujitvā vinibbhujitvā nānākarāṇaṃ paññāpetuṃ.

7. Relate in your own Pāli the story illustrative of one of the following texts:—

(a) Idha modati pecca modati katapuñño ubhayattha modati so modati so pamodati diṣva kammavisuddhim attano.

(b) Idha nandati pecca nandati katapuñño ubhayattha nandati.

“puññaṃ me katam” ti nandati bhiyyo nandati sugatim gato.

8. Translate into idiomatic English:—

Tassa pana gatakāto paṭṭhāya te amaccā puna vinicchaye nisīditvā vilopaṃ karontā cintayīmsu: “sace Mahābodhiparibbājako punāgamiessati jīvitaṃ no n’atthi, kim nu khvassa anāgamanakāraṇaṃ kareyyāma” ti. Atha nesaṃ etad ahoṣi: “ime sattā paṭibaddhatthānaṃ nāma jahitum na sakkonti, kin nu khavassa idha paṭibaddhatthānaṃ” ti, tato “rañño aggamaheṣiti” űatvā “thānaṃ kho paṇ’ etaṃ vijjati yaṃ so imaṃ nissayam āgaccheyya, paṭigacce’ eva naṃ mārāpessāma” ti te rājānaṃ etad avocuṃ: deva ime divase nagare ekā kathā suyyatīti.” “Kimkathā nāma” ti “Mahābodhiparibbājako ca devī ca aññamaññaṃ sāsanaṃ paṭisaṇaṃ pesesantīti.” “Kin ti katvā” ti. “Tena kira deviyā pesitaṃ: ‘sak-khasi nu kho attano balena rājānaṃ mārāpetvā mama setacchattaṃ dātuṃ ti, tāya pi ‘ssa pesitaṃ: rañño mārāṇaṃ nāma mama bhāro, khippam āgacchatū’ ti.” Rājā tesam punappuna kathentānaṃ saddahitvā “idāni kiṃ kātabbānaṃ” ti pucchitvā “devim māretum vattatīti” vutte anupaparikkhitvā va “tena hi taṃ tumhe māretvā khaṇḍākhāṇīyaṃ chinditvā vaccakūpe khipathā” ti āha. Te tathā karīmsu, tassā mārītabhāvo sakalanagare pākato ahoṣi.

PALI.

THIRD HONOURS PAPER.

Examiner—BABU SAILENDRANATH MITRA, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

A. SANSKRIT GRAMMAR.

1. Give the accusative and instrumental (in all numbers) of any four of the following:—

मघवन्, विश्ववज्, निश्, पुंश्, वरीयस्, लघिमन् ।

2. Join the words in any two of the following sentences by the rules of sandhi, giving the rules in the cases marked with asterisks:—

(a) इत्येते अग्नाविष्णु इष्टो अस्मात् ।

- (b) कः* ग्रन्थः पुनः ईश्वरात् एवम् कर्तुम् समर्थः स्यात् ।
 (c) संनिधौ* एतच्च ग्रामकं वपस्थितः सः जातमः ।
 (d) तद्* हरति मृत्विज् यक्षमण्डपे ।

3. Give three instances of Karmadhāraya, Bahuvrīhi, and Samāhāra-Dvanda compounds and dissolve them. 3

Or,

Translate into Sanskrit, forming compounds of the words hyphenated in the following :— 3

- (a) Those-who-have-done-evil must do penance twelve-days.
 (b) With-upturned-face the Cātaka prays for rain-water.
 (c) The king, although many-wived, is childless.

B. PĀLI GRAMMAR.

Only THREE questions to be answered.

4. Give instances of—(a) the dative absolute of the present participle, and (b) the locative absolute of the present and past perfect passive participle in Pāli. 5
 5. Give the terminations of the conditional in Pāli both in the Parassapada and the Attanopada. 5
 6. State and illustrate by examples the uses in Pāli of— (a) the ablative case, and (b) gerundial forms used prepositionally. 5
 7. 'H sometimes returns to its original medial aspirate, and this gives us Pāli forms which are older than the corresponding ones in Sanskrit.' Explain and illustrate. 5
 8. Translate and write grammatical notes on any peculiarities in the following :— 5
 (a) Yavā patisedhanti gāvo.
 (b) Buddhassa silāghate.
 (c) Gottena Gotamo.
 (d) Ājivikā bhikkhūsu abhivādentī.
 (e) Rudato dārakassa pabbajī.

C. PHILOLOGY.

9. 'Roots are excellent labels to show that a lot of words form one class and another a distinct class.' Illustrate this remark by examples from Sanskrit, Pāli, and English. 10
 10. 'The so-called infinitive mood is historically no mood at all.' Illustrate this statement. 10
 11. 'The verb was further distinguished in our group of languages by its capacity of expressing different times of action' (Peile). Explain with special reference to Sanskrit and Pāli. 10
 12. How would you discuss the question whether speech preceded thought or thought speech? 10
 13. What is understood by *primary* and *secondary* suffixes? Illustrate your explanation by examples from Sanskrit, Pāli, and English. 10
 14. Write philological notes on :— 10
 (a) *whilst*, *work*, *gospel*, *needs*, and *pilgrim*.
 (b) *saddhīm*, *siyā*, *ahāsi*, *viccha*, and *hohtilī*.

D. TRANSLATION.

15. Translate into Pāli either (a) or (b):—

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(a) As the body when dead is repulsive, so is it also when alive: but on account of the concealment afforded by an adventitious adornment, its repulsiveness escapes notice. The body is in reality a collection of over three hundred bones, and is framed into a whole by means of one hundred and eighty joints. It is held together by nine hundred tendons, and overlaid by nine hundred muscles, and has an outside envelope of moist cuticle covered by an epidermis full of pores, through which there is an incessant oozing and trickling, as if from a kettle of fat. It is a prey to vermin, the seat of disease, and subject to all manner of miseries. Through its nine apertures it is always discharging matter like a ripe boil. Matter is secreted from the two eyes, wax from the ears, snot from the nostrils, and from the mouth issue food, pile, phlegm, and blood, and from the two lower orifices of the body faeces and urine, while from the ninety-nine thousand pores of the skin an unclean sweat exudes attracting black flies and other insects.

(b) Were even a king in triumphal progress to neglect the use of tooth-sticks, mouth-rinses, anointings of the head, baths, and inner and outside garments, and other means for beautifying the person, he would become as uncouth and unkempt as the moment he was born, and would in nowise differ in bodily offensiveness from the low-caste *candāla* whose occupation it is to remove dead flowers. Thus in respect of his uncleanness, malodour, and disgusting offensiveness, the person of a king does not differ from that of a *candāla*. However, when, with the help of tooth-sticks, mouth-rinses, and various ablutions, men have cleansed their teeth, and the rest of their persons, and with manifold garments have covered their nakedness, and have anointed themselves with many-coloured and fragrant unguents, and adorned themselves with flowers and ornaments, they find themselves able to believe in an 'I' and a 'mine'. Accordingly, it is on account of the concealment afforded by this adventitious adornment that people fail to recognize the essential repulsiveness of their bodies, and that men find pleasure in women, and women in men. In reality, however, there is not the smallest just reason for being pleased.

PALI.

FOURTH HONOURS PAPER.

Examiner— { MAHAMAHOPADHYAYA DR. SATISCHANDRA
VIDYABHUSHAN, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

A. TEXT.

1. Give a full account of the Second Buddhist Convocation. What were the conclusions arrived at? Discuss them quoting authorities. 9
2. Give Gotama Buddha's genealogy beginning from Mahāsammato. 9

Or,

Give, in *elegant Pāli*, an account of Gotama Buddha's visit to Ceylon.

3. Translate into idiomatic English any *two* of the following, adding explanatory notes on the words italicized, criticising their interpretations by Turnour and Vjiesimha :—

- (a) Namassitvāna Sambuddham susuddham suddhavaṃsajam Mahāvamsaṃ pavakkhāmi nānānūñādhikārikaṃ.
Porāṇehi kato p'eso ativittārito kvaci,
atīva kvaci samkhitto, anekapunaruttako.
Vajjitaṃ tehi dosehi sukhaggahaṇadhāraṇaṃ
pasādasamvegakaraṃ *sutito ca upāgataṃ*
Pasādajanake thāne tathā savegakārake
janayantā pasādaṃ ca samvegaṃ ca suṇātha taṃ.
- (b) Aggaṃ bahussutādināṃ kosārakkhaṃ mahesino,
sammannitvāna attānaṃ thero dhammam apucchi so.
Tathā sammanni attānaṃ dhammāsanagato sayam,
vissajjesi taṃ Ānandathero dhammam asesato.
Vedhamuninā tena vissajjitakamena, te
sabbe sajjhāyam akarum dhammaṃ dhammatthakovidā.
Evaṃ sattahi māsehi dhammasaṅgīti nitthitā;
sabbalokahitathāya sabbalokahitehi sā.
- (c) Patte soḷasame vasse, Satthā dhammam adesayi.
Dvāpaññāsavassāni rajjaṃ kāresi so pana.
Rajje samā pannarasa pubbe Jinasaṃāgamā;
sattatimsa samā tassa, dharamāne Tathāgate.
Bimbisārasuto 'jātasattu taṃ ghātiyāmati
rajjaṃ dvattimsavassāni mahāmittaddu kārayi.
Ajātasattuno vasse atthame Muni nibbuto;
pacchā so kārayi rajjaṃ vassāni catuvīsati.

4. How has the word "Tathāgata" been interpreted? Adduce at least eight instances from the Pāli canon to show the various meanings of the word.

B. UNSEENS.

5. Translate the following into idiomatic English :—

30

- (a) Pare Ambātakārāme vanasaṇḍamhi Bhaddiyo samūlaṃ taṇham abbuyha tattha bhaddo jhiyāyati.
Ramant' eka mutiṅgehi viṇāhi papavehi ca,
aḥaṃ ca rukkhamaḷasmiṃ rato Buddhassa sāsane.
Buddho ca me varaṃ dajjā se ca labbhettha me varo,
gaṇhe 'haṃ sabbalokassa niccaṃ kāyagatāssatiṃ.
Ye maṃ rūpena pāmiṃsu ye ca ghosena anvagū
chandarāga-vasūpetā na maṃ jānanti te jaṇā.
Ajjhataṇa ca na jānāti bahiddhā ca vipassati
bahiddhāphaladassāvi, so pi ghosena vuyhati.
Ajjhataṇa pajānāti bahiddhā ca vipassati
anāvaraṇadassāvi, na so ghosena vuyhati.
- (b) Sare hatthehi bhañjivā katvāna kutim acchisam,
tena me Sarabhaṅgo 'ti nāmaṃ sammutiyaṃ ahū.
Na mayhaṃ kappate ajja sare hatthehi bhañjituṃ,
sikkhapaḍā no paññattā Gotamena yasassinā.
Sakalaṃ samattaṃ rogaṃ Sarabhaṅgo nāddasaṃ pubbe,
so yaṃ rogo diṭṭho vacanakarenātidevassa.

Yam' eva maggena gato Vipassī yen eva maggena Sikhi ca
 Vessabhū
 Kakusandhakoṇāgamano ca Kassapo ten' añjasena agamāsi
 Gotamo
 Vītataṇhā anāḍānā satta buddhā khayogadhā
 yeh' ayaṃ desito dhammo dhammabhūtehi tādihi
 Cattāri ariyasaccāni anukampāya pāṇinaṃ,
 dukkhaṃ samudayo maggo nirodho dukkhasaṃkhayo.
 Yasmim nibbattate dukkhaṃ saṃsārasmim anantakaṃ
 bhedaṃ imassa kāyassa jivitassa ca saṃkhayā
 añño punabbhavo n'atthi, suvimutto 'mhi sabbadhī.

C. SANSKRIT GRAMMAR.

6. (a) How are the Past Participles (active and passive) formed 3
 in Sanskrit ?

(b) Translate the following into Sanskrit, using grammatical 10
 forms for the italicized words, as indicated within brackets :—

1. By this king *who had received* a weapon from Hara.—(Past Active Participle as Adjective).
2. The king *handed over* the boy to the queen.—(Past Active Participle as Verb).
3. *The rich* are never contented.—(Past Active Participle as Noun).
4. He searched for his daughter *who had been stolen away* by his servant.—(Past Passive Participle as Adjective).
5. A man ruins himself by his *bad conduct*.—(Past Passive Participle as noun).

7. Give the rules for the formation of the Infinitive, mentioning 6
 specially those for the vowel-insertion. Give some illustrations.

8. (a) Give the feminine forms of *any four* of the following :— 4

नूदत् (nudat), श्लाघ्यत् (śāmyat), लघुतम (laghutama), वार्षिक (vārṣi-
 ka), त्रिंशत्तम (triṃśattama) and स्थापक (sthāpaka).

(b) Give :—

(i) the third person of the present of *any two* of :—गृह् (guh), 2
 सो (so), and नु (nu).

(ii) the third person of the imperfect of *any two* of :—शास् (śās), 2
 पिब (piḥ), and रुद् (rud).

(iii) the third person of the aorist of *any three* of :—स्था (sthā) in 9
 the ātmanepada; मन् (man), तन् (tan) in the ātmanepada; and the parasmaipada; दुह् (duh) in the ātmanepada and in the parasmaipada.

PALI.

FIFTH HONOURS PAPER.

Examiner—BABU SAILENDRANATH MITRA, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

A. TEXTS.

1. Write out *in your own Pāli* the substance of Buddha's reply to the appeal of Māra touching his parinibbāna. 8

Or,

Give briefly *in your own Pāli* what Buddha, while speaking of Māra's appeal, said about the fault of Ānanda. 8

2. Write historical and geographical notes on *any four* of the following:—Pāṭaligāma, Koṭigāma, Beluva, Bhaṇḍagāma, Pāvā, and Kusinārā. 8

3. Answer *in your own Pāli* one of the following questions topically discussed in the Mahāgovinda Sutta:—

(a) Why do the gods rejoice?

(b) Can there be two Buddhas?

4. Translate into *idiomatic* English *one* of the following extracts, adding notes on the italicized words:— 8

(a) Tathāgatassa kho Ānanda na evaṃ hoti 'Ahaṃ bhikkhusaṃghaṃ pariharissāmiti' vā 'Maṃ uddesiko bhikkhusaṃgho' ti vā. Kim Ānanda Tathāgato bhikkhusaṃghaṃ ārabha kiñcid eva udāharissati? Ahaṃ kho paṇ' Ānanda etarahi jīṇo vuddho mahallako addhagato vayo anuppatto, asītiko me vayo vattati. Seyyathā pi Ānanda jara-sakatam *vegga-missakena* yāpeti, evam eva kho Ānanda *vegga-missakena* maññe Tathāgatassa kāyo yāpeti. Yasmim Ānanda samaye Tathāgato sabbanimittānaṃ amanasi-kārā ekaccānaṃ vedanānaṃ nirodhā animittā *ceto-samādhiṃ* upasampajja viharati, phāsukato Ānanda tasmim samaye Tathāgata-ssa kāyo hoti.

(b) Atha kho bho Mahā-Govindo brāhmaṇo puratthimena nagarassa navam *samhāgāraṃ* kārapetvā vassike cattāro māsē paṭisalliyi, *karuṇaṃ jhānaṃ* jhāyi, nāssuda koci upasāṃkami aññatra ekena bhattābhhihārena. Atha kho bho Mahā-Govindassa brāhmaṇassa catunnaṃ māsānaṃ accayena ahud eva ukkaṇṭhaṇā ahu paritassanā: Sutaṃ kho pana m' etam Brāhmaṇānaṃ vuddhānaṃ mahallakānaṃ ācariya-pācariyānaṃ bhāsamānānaṃ: Yo vassike cattāro māsē paṭisalliyati karuṇaṃ jhāyaṃ jhāyati, so Brahmānaṃ passati, Brahmunā sākaçcheti sallapeti mantetīti. Na kho paṇāhaṃ Brahmānaṃ passāmi, na Brahmunā sākaçchemi, na Brahmunā sallapāmi na Brahmunā mantemti.

5. Give *in your own Pāli* an account of the conversion of Subhadda. 8

Or,

Write out *in your own Pāli* the substance of Govinda's dialogue with his wives. 8

B. UNSEEN PROSE.

6. Translate into *idiomatic* English one of the following :—

30

(a) Bhavañ ce kho pana rājā evaṃ sakaṇṭake janapade sa-upapilē balim uddhareyya, akicca-kārī assa tena bhavañ rājā. Siyā kho pana bhoto rañño evaṃ assa: 'Aham etaṃ dassu-khilaṃ vadhena vā bandhena vā jāniyā vā garahāya vā pabbājānāya vā samūhanis-sāmiti', na kho pan' etassa dassu-khīlassa evaṃ sammā samugghāto hoti. Ye te hatāvasesakā bhavissanti, te pacchā rañño janapadaṃ vihetheṣṣanti. Api ca kho idaṃ saṃvidhānaṃ āgama evaṃ etassa dassukhīlassa sammā samugghāto hoti. Tena hi bhavañ rājā ye bhoto rañño janapade ussahanti kasi-gorakkhe teṣaṃ bhavañ rājā bīja-bhattaṃ anuppādetu, ye bhoto rañño janapade ussahanti vaṇijjāya teṣaṃ bhavañ rājā pābhataṃ anuppādetu, ye bhoto rañño janapade ussahanti rāja-porise teṣaṃ bhavañ rājā bhatta-vetaṇaṃ pakappetu, te ca manussā sa-kamma-pasutā rañño janapadaṃ na vihetheṣṣanti, mahā ca rañño rāsiko bhavissati, khemaṭṭhitā janapadā akaṇṭakā anupapilā, manussā ca mudā modamānā urē putte naccetā apāruta-gharā maññe viharissanti.

(b) Ime kho āvuso Gotama tapo-pakkamā ekesaṃ samaṇa-brāhmaṇānaṃ sāmāñña-saṃkhātā ca brāhmaṇāna-saṃkhātā ca. Ace-lako hoti muttācāro hatthāpalekhano, na-ehibhadantiko, na-tittha-bhadantiko, nābhihataṃ na uddissakataṃ na nimantanāṃ sādīyati. So na kumbhimukhā patigaṇhāti, na kaḷopimukhā patigaṇhāti, na eḷakamantaraṃ na daṇḍamantaraṃ na musulamantaraṃ, na dvinnāṃ bhuñjamānānaṃ, na gabbhiniyā na pāyamānāya na purisantaragatāya, na saṃkittisu, na yatthā sā upatthito hoti, na yattha makkhikā saṇḍa-saṇḍa-cārini, na macchaṃ nā maṇsaṃ, na sūraṃ na merayaṃ na thusōdakam pivati. So ekāgāriko va hoti ekālopiyo, dvāgāriko vā hoti dvālopiyo, sattāgāriko va hoti sattālopiyo. Ekissā pi dattiyā yāpeti, dvihi pi dattihi yāpeti, sattahi pi dattihi yāpeti. Ekāhikam pi āhāraṃ āhāreti, iti evarūpaṃ addha-māsikam pi pariyāya-bhatta-bhojanānuyogam anuyutto viharati.

C. SANSKRIT GRAMMAR.

7. Translate into *idiomatic* Sanskrit any five of the following sentences :—

10

- May the king and his descendants rule us long.
- The prince questioned him how much wealth he wanted.
- Then a battle took place and the gods killed them.
- They began to excavate the hill, and effected it after many days.
- The doctor has directed me to take this medicine for forty-two days.
- He embraced his child and wept bitterly.

8. Give the feminine forms of any five of the following :—

5

अन्तरवत् (antarvat), मनु (manu), अर्य (arya), परान्मुख (parānmukha), पङ्गु (paṅgu) and हय (haya).

9. (a) Give three instances of one and the same thing being denoted in Sanskrit by three words in the three different genders.

3

(b) Give five instances of compounds in which the case-endings of the first members are retained.

5

10. State in what circumstances two vowels may come together without coalescing and where they must not coalesce. Illustrate your answer with examples. 7

Or,

Describe the formation of the different classes of aorists in Sanskrit, comparing them with their corresponding Pāli forms. 7

PALI.

SIXTH HONOURS PAPER.

Examiner—BABU REBATINATH CHATTERJEE, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. *Either* state the sixteen political divisions, or mention the ten clans that existed in India when Buddhism arose in the sixth century B.C. 8
2. Answer *one* of the following:— 5
 - (a) What do you understand by a *dāgaba* or *tope* ?
 - (b) Give some account of the Peppé vase.
3. Does the Pāli literature throw any light on the antiquity of the art of writing in India ? 8
4. Discuss the relative antiquity of the Pāli and Sanskrit languages. 8
5. Answer *one* of the following:— 7
 - (a) Wherein lies the importance of the Bhavra edict ?
 - (b) What are the sources of our information about Asoka ? Can you ascertain his date ?
6. Trace the antiquity of the Jātaka book. 7
7. Answer *one* of the following:— 7
 - (a) What does Megasthenes say about Chandra Gupta and his capital city ?
 - (b) Who was Kanishka ? To what race did he belong ?
8. Define Philology. 4
9. Answer *one* of the following:— 7
 - (a) What was the origin of language ?
 - (b) Give a short history of the eight parts of speech.
10. (a) Write notes on *three* of the following:—Chamberlain, children, seldom, and landscape. 6
- (b) Give examples of *four* of the following:—Augment, reduplication, middle voice, sociative case, continuous consonant, and labio-dental. 8
11. (a) What is a monosyllabic language ? 4
- (b) Name some languages that come under the Turanian group. 4
12. Illustrate from English the principle that many words we designate as derivatives were once in reality compounds. 5
13. Explain and illustrate Grimm's Law. 8
14. Answer *one* of the following:— 4
 - (a) Give *four* examples of secondary suffixes from Pali, Sanskrit, and English.
 - (b) Trace the meaning of the singular and plural suffixes in their oldest forms.

PALI.

FIRST PASS PAPER.

Examiner—MAHAMAHOPADHYAYA DR. SATISCHANDRA VIDYA-
BHUSHAN, M.A., PH.D.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. (a) What are the ten precepts (dasasikkhāpadaṃ) mentioned 10
in the Khuddakapāṭha ?
(b) Give the substance of what is stated in the Tirokudda 8
Sutta about the spirits of the Departed.
2. Translate two of the following into English :— 12
(a) Patirūpadesavāso ca pubbe ca katapuññatā |
attasammāpaṇidhi ca etaṃ maṅgalaṃ uttamaṃ ||
Bāhusaccaṃ ca sippaṇca vinayo ca susikkhito |
subhāsītā ca yā vācā etaṃ maṅgalaṃ uttamaṃ ||
(b) Ye puggalā attha sataṃ pasatthā
cattāri etāni yugāni honti |
te dakkhiṇeyyā sugatassa sāvaka
etesu dinnāni mahapphalāni ||
Idam pi saṅghe ratanaṃ paṇitaṃ |
etena saccena suvatthi hotu ||
(c) Asādhāranamaññesaṃ acoraharaṇo nidhi |
kayirātha dhiro puññāni yo nidhi anugāmiko ||
Esa devamanussānaṃ sabbakāmadado nidhi |
yaṃ yad evābhipatthenti sabbam etena labbhati ||
3. (a) What is the exact meaning of the word 'Dhammapada' ? 5
(b) Give a summary in English of either the Attavagga or the 7
Bālavagga.
4. Translate three of the following into English :— 15
(a) Yassaśavā parikkhiṇa āhāre ca anissito |
suññato animitto ca vimokkho yassa gocaro |
ākāseva sakuntānaṃ padaṃ tassa durannayaṃ ||
(b) Pāṇimhi ce vaṇo nāssa hareyya pāpinā visāṃ |
nābbaṇaṃ visamanveti natthi pāpaṃ akubbato ||
(c) Sukho Buddhānaṃ uppādo sukhā saddhamma-desanā |
sukhā saṅghassa sāmaggī samaggānaṃ tapo sukho ||
(d) Ayasāva malaṃ samutṭhitaṃ tadutṭhīya tameva khādati |
evaṃ atidhonacārīnaṃ sāni kammāni nayanti duggatim ||
5. Give the substance of two of the following in English :— 6
(a) Sujīvaṃ ahirikena kākasūreṇa dhamsinā |
pakkhandinā pagabbhena saṃkiliṭṭhena jīvitam ||
(b) Yesaṇca susamāraddhā niccaṃ kāyagatā sati |
akiocante na sevanti kiṇce sātaccakārino |
satānaṃ saṃpajānānaṃ atthaṃ gacchanti āsavā ||

- (c) Vītataṇho anādāno niruttipadakovidō |
akkharaṇaṃ sannipātaṃ jaṇṇā ubbāparāṇi ca |
sa ve antimasāro mahāpaṇṇo mahāpuriso ti vuccati |

In (a) derive 'sujivaṃ' and expound the samāsa in 'kākasūrena.' 7
What is the meaning of 'āsavā' in (b)? Conjugate the root of
'susamāradhā' in vattamānā (the present tense). In (c) expound
the samāsa in 'niruttipadakovidō.'

6. Translate the following into English :—

30

- (a) Etasmiṃ te sulapite patirūpe subhāsita |
varaṃ Kassapa te dammi yaṃ kiñci manas' icchasi |
Varaṃ ce me ado Sakka sabbabhūtānaṃ issara |
khettaṃ vatthum hiraṇṇaṃ ca gavāssaṃ dāsaṇḍaṃ
yena jātena jiyanti so doso na mayi vase |
Bālaṃ na passe na suṇe na ca bāleṇa saṃvase |
bāleṇ' allāpasallāpaṃ na kare na ca rocaye |
Kin nu te akaraṃ bālo, vada Kassapa kāraṇaṃ |
kena Kassapa bālassa dassanaṃ nābhikaraṇkhasi |
- (b) Kāmesu va haṇṇare bajjhare ca |
kāmesu dukkhaṇca bhayaṇca jātāṃ |
kāmesu bhūtādhipatiṃ pamattā |
pāpāni kammaṇi karonti mohā |
Te pāpadhammā pasavetva pāpaṃ |
kāyassa bhedaṃ nirayaṃ vajanti |
ādinavaṃ kāmagaṇesu disvā |
tasmā isayo nappasaṃsanti kāme |
Ācariyo me si pitā va mayhaṃ |
esā patitthā khalitassa brahma |
ekāparādhamaṃ khama bhūripuṇṇa |
na paṇḍitā kodhabalā bhavanti |

PALI.

SECOND PASS PAPER.

Examiner—BABU REBATINATH CHATTERJEE, M.A.

Candidates are required to give their answers in their own words
as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English *two* of the following extracts :—

15

(a) Atha kho Devamantiyo rājānaṃ Milindaṃ etad avoca :
āgamehi tvaṃ mahārāja, āgamehi tvaṃ mahārāja, atthi mahārāja
Nāgaseno nāma thero paṇḍito byatto medhāvi vinito visārado bahus-
suto citrakathī kalyāṇa-paṭibhāno, attha-dhamma-nirutti-paṭibhāna-
paṭisaṃbhidaṃsu pāramippatto, so etarahi Saṅkheyyapariveṇe paṭi-
vasati, gaccha tvaṃ mahārāja, āyasmaṃtaṃ Nāgasenaṃ paṇḍitaṃ
pucchassu, ussahati so tayā saddhiṃ sallapitum kaṅkhaṃ paṭivineṭ-
tun ti.

(b) Rājā āha : Bhante Nāgasena, sakkā imesaṃ dhammānaṃ
ekatobhāvaṃ gatānaṃ vinibhujitvā vinibhujitvā nānākaranaṃ paṇḍi-
petum : ayaṃ phasso, ayaṃ vedanā, ayaṃ saññā, ayaṃ cetanā, idaṃ

viññānaṃ, ayaṃ vitakko, ayaṃ vicāroti. Na sakkā mahārāja imesaṃ dhammānaṃ ekatobhāvaṃ gatānaṃ vinibhujitvā vinibhujitva nānā-karaṇaṃ paññāpetuṃ : ayaṃ phasso, ayaṃ vedanā, ayaṃ saññā, ayaṃ cetanā, idaṃ viññānaṃ, ayaṃ vitakko, ayaṃ vicāro ti.

(c) Kāruniko mahārāja Bhagavā sabbāññū ca. Kāruṇīyena mahārāja Bhagavā sabbāññūtaññāna Devadattassa gatiṃ olokeno addasa Devadattaṃ aparāpariyakammaṃ āyūhitvā anekāni kappakotissatasahasāni nirayaṃ vinipātēna vinipātāṃ gacchan-taṃ. Taṃ Bhagavā sabbāññūtaññāna janitvā : imassa apariyanta-kataṃ kammaṃ mama sāsane pabbajitassa pariyantakataṃ bhavis-sati, purimaṃ upādāya pariyantakataṃ dukkhaṃ bhavissati, apab-bajitopi ayaṃ moghapuriso kappatthiyam eva kammaṃ āyūhissatīti kāruṇīyena Devadattaṃ pabbājesīti.

2. Conjugate the roots of 'vinīto' and 'nirutti' in (a) in the vattamānā, parokhā and ajjatanī in the third person singular number. Derive 'hyatto.' Find out the roots and suffixes of 'vinibhujitvā' and 'paññāpetuṃ' in (b). Derive 'kāruniko' and 'sabbāññū' in (c). What is the feminine form of 'olokento'?

3. Translate the following passage into English :—

Tena kho pana samayena Saṅjāyo paribbājako Rājagahe pati-vasati, mahatiyā paribhājakaparisāya saddhiṃ. Te 'tassa santike pabbajissāmāsi,' pañca mānavakasatāni sivikā ca rathe ca gahetvā gacchathā' ti uyyojetvā, pañca hi pi satehi saddhiṃ Saṅjayassa santike pabbajimsu. Tesāṃ pabbajitakālo patthāya Saṅjāyo atire-kalābhagga-yasaggappatto ahosi. katipāhen'eva sabbāṃ Saṅjayassa samayaṃ parimadditvā : 'ācariya tumhākaṃ jānanasamayo ettako va, udāhu uttarim pi atthīti' pucchimsu. 'Ettako va : subbaṃ tumhehi dātāṃ' ti vutte, cintayimsu : 'evaṃ sati imassa santike brahmacariyavāso niratthako, mayaṃ yaṃ mokkhadhammaṃ gavesi-tuṃ nikkhantā taṃ imassa santike uppādituṃ na sakkoma, mahā kho pana Jambudīpo gāma-nigama rājadhāniyo carantā addhā mokkhadhammadesakaṃ kañci ācariyaṃ labhissāmā' ti.

4. (a) Write notes on five of the following :—

Ganthadhuraṃ, vipassanādhuraṃ, dasa-bala, Gotamabuddhassa dutiya sāvako, anupādisesa nibbāna dhātu, and singhātaka.

(b) Expound the samāsas in three of the following :—

Paribhūjanaka-sāmi-sadiso : pakkha-paharāna-mattāṃ ; āde-saṇā-pāṭihāriyānusāsaniyā : and lābha-sakkārābhībhūto.

5. (a) Give in English a brief summary of the story of either Cūla-kāla-Mahākāla-vatthu or Kosambakavattu.

(b) Write all that you know about King Milinda.

6. Answer any three of the following :—

(a) In what connection has the story of Vessantara been men-tioned in the Milindapañha?

(b) What books of the Abhidhammapiṭaka have been mentioned in the Milindapañha?

(c) Etēhi mantitaṃ gūyaṃ khippaṃ bhavati pākataṃ. Who are referred to by "etēhi"?

(d) Etāni attha thānāni buddhivisadakarākā. What are the "attha thānāni" referred to here?

7. Explain in Pāli in the manner of Buddhaghosa the following line :—

Pāre ca na vijānanti "mayam ettha yaṃāmase."

8. Translate the following into English :—

Atīte Bārāṇasiyaṃ Brahmaḍatte rajjāṃ kārente Bodhisatto aññatarasmim nigamagāme brāhmaṇakule nibbattitvā vayappatto isipabbajjāṃ pabbajitvā Himavanta-padese ciraṃ vasitvā lonam-

bilasevanatthāya Bārāṇasīm patvā rājuyyāne vasitvā punadivase Bārāṇasīm pāvisi. Ath'assa Bārāṇasissetthi cāravihāre pasiditvā geham netvā bhojetvā uyyāne vasānatthāya patitthim gahetvā tam patijagganto uyyāne vasāpesi. Te aññamaññam uppannāsenehā ahesum. Ath'ekadivasaṃ Bārāṇasissetthi Bodhisatte pemavissāsa-sena evaṃ cintesi : "pabbajjā nāma dukkhā, mama sahāyaṃ Vaccha-nakhaṃ paribbājakaṃ uppabbājetvā sabbam vibhavam majjhe bhinditvā tassa datvā dve pi samaggavāsaṃ vasissāma" 'ti so ekadivasaṃ bhattakiccapariyosāne tena saddhim madhurapatisanthāraṃ katvā "bhante Vacchanakha, pabbajjā nāma dukkhā, sukho gharāvāso, ehi ubho samaggā kāme paribhuñjamānā vasāma" 'ti vatvā paṭhamam gātham āha :

Sukhā gharā Vacchanakha sahirāñña sabhojanā
yattha bhutvā ca pītvā ca sayeyyātha anussuko ti.

PALI.

THIRD PASS PAPER.

Examiner—BABU SAILENDRANATH MITRA. M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

A. SANSKRIT GRAMMAR.

1 (a) Dissolve *any four* of the following compounds, and state to which class each belongs :— 4

नीलोत्पल, सपुत्र, प्रामञ्जीवक, राजान्तर, वृक्षभीत, and पुरुषव्याघ्र ।

(b) Give the comparatives and superlatives of *any four* of the following :— 4

श्रीजस्त्रिभु, प्राक्, बहु, श्रेष्ठ, and सुदु ।

2. Write down the forms of the 3rd pers. of the perfect of वञ्ज, जञ्, and वञ्ज् । 4

Or,

Give the 3rd pers. sing. future of स्मृ, यञ्, जञ्, and वञ् । 4

3. In what compounds is सञ्जञ् changed to सञ्जा ? Give examples. 3

Or,

State the rule for the change of स into ज. Give examples. 3

B. PĀLI GRAMMAR.

Take up THREE questions only.

4. Decline *bhisi* (mat) and *pacchi* (basket) in singular and plural. 5
Give the locative singular and plural (masculine and feminine) of *ka* (who), *ya* (which), and *ima* (this).

5. Illustrate the use of *ya* as a correlative. Give instances of dative and locative absolutes. 5

6. Write grammatical notes on the following forms:—*dicchati*, *gheppati*, *alaṭṭha*, *yamāse*, and *vijjare*. 5

7. Name the insertions that are usually made to prevent hiatus in vowel sandhis, and give examples of such sandhis. 5

C. PHILOLOGY.

Take up FIVE questions only.

8. What names are now given to—*onoma*, *rhema*, *metoche*, *arthron*, *antonumia*, *prothesis*, *epirrhema*, and *sundesmos*? Sketch the history of these words. 8

9. Explain, with examples from Sanskrit, Pāli, and English:—*compensation*, *epenthesis*, *metathesis*, and *analogy*. 8

10. Enunciate carefully Grimm's Law, giving examples from Sanskrit, Low and High German. 8

11. Explain and illustrate by examples the difference between *synthetic* and *analytic* languages. 8

12. What part do roots and suffixes play in the formation of words in the Indo-European language? Name some of the suffixes most recognizable in languages, indicating the way in which they have been used. 8

13. Derive (a) corporal, chamber, arm, feet; (b) *arahā*, *dosina*, *majjhima*, *saṃgharati*. 8

•

D. TRANSLATION.

14. Translate into *idiomatic* Pāli either (a) or (b):—

(a) Meantime she, screaming loudly, was swept down by the swollen stream, and at midnight approached where the Bodhisatta dwelt in his hermitage. Hearing her cries, he thought to himself, 'That's a woman's voice. I must rescue her from the water.' So he took a torch of grass and by its light descried her in the stream. 'Don't be afraid: don't be afraid!' he shouted cheerily, and waded in, and, thanks to his vast strength, as of an elephant, brought her safe to land. Then he made a fire for her in his hermitage, and set luscious fruits of divers kinds before her. Not till she had eaten did he ask, 'Where is your home, and how came you to fall in the river?' And the girl told him all that had befallen her, 'Dwell here for the present,' said he, and installed her in his hermitage, whilst for the next two or three days he himself abode in the open air. 30

(b) 'So be it,' answered the Bodhisatta; and he lay down as before. Then that vile wretch, trampling upon the trunk of the Bodhisatta, that sacred trunk which was like corded silver, and clambering upon the future Buddha's temples, which were as the snowy crest of Mount Kelāsa—kicked at the roots of the tusks till he had cleared the flesh away. Then he sawed out the stumps and went his way. But scarce had the wretch passed out of sight of the Bodhisatta, when the solid earth, unconceivable in its vast extent, which can support the mighty weight of Mount Sineru and its encircling peaks, now burst asunder in a yawning chasm—as though unable to bear the burthen of all that wickedness! And straightway flames from nethermost Hell enveloped the ingrate, wrapping him round as in a shroud of doom, and bore him away.

Alternative questions on Pāli Grammar which may be taken up by Burman candidates instead of Group A.

Take up THREE questions only.

1. Analyse the sandhis in the following :—khvassa, tyatthu, paccā-gami, ajjhāvasati, bujjha.
2. Expound the samāsa in—corabhayaṃ, tilokaṃ, yathābalaṃ, purisakato, hatthiassaṃ.
3. Illustrate by examples the main uses of the dative in Pāli.
4. Give—the accusative of *disā*, the instrumental of *sathā*, the dative of *amha*, the ablative of *bhikkhu*, and the locative of *eka* (feminine).
5. Give—the present participle of *as*, the future passive participle of *bhid*, the gerund and the infinitive of *hū*, and the passive perfect participle of *chid*.

ARABIC.

FIRST HONOURS PAPER.

Paper-setters— (Pass and Honours).	HON. DR. A. SUHRAWARDY.
	SHAMS-UL-ULMA ABU NASR MD. WAHEED.
	M.A.
	SHAMS-UL-ULMA KAMALUDDIN ARMAD. M.A.
	SHAMS-UL-ULMA SHAIKH MAHMUD GILANI.

Examiner—SHAMS-UL-ULMA ABU NASR MD. WAHEED. M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Translate into English any two of the following :—

18

A.

دربر كخدروف الوليد امره
تتابع كفيه بخيط مومل
له ايطاليا ظبي وساقا نعامة
وارزاء سرحان وتقريب تنقل
ضليع اذا استدبرته سد فرجه
بضاف فويق الارض ليس باعزل

كل سراته لدي البيت قائما
مداك عروس او صلاية خنظل
كان دماء الهاديات بنحرة
عصاة حناء بشيب مرجل
فعن لنا سرب كان نعاية
عذاري دوار في ملاء مذييل
فادبرن كالجزع المفصل بينه
بجيد مع في العشيرة مخول
فالحقنا بالهاديات ودونه
جواحرها في صرة لم تزيل
فعادى عدا بين ثور و نعجة
دراكا ولم يفضح بماء فيغسل

B.

حتى اذا سلخت جمادي ستة
جزءا فطال عيامه و عيامها
رجعا بامرهما الى ذى مرة
حصد ونجى صريمة ابرامها
ورمي دوابرها السفى وتبيحت
ريح المصائف سومها وسهامها
فتنازع سبطا يطير ظلالة
كدخان مشعلة يشب ضرامها
مشمولة غلثت بنابت عرفج
كدخان نار ساطع اسنامها

فمضى وقدمها وكانت عادة
منه اذا هي عردت اقدامها
فتوسطا عرض السرى ومدعا
مسجورة متجارر اقلامها
محفوفة وسط اليراع يظلمها
منه مصرع غلبة وقيامها

C.

ما راغني الا حمولة اهلها
وسط الديار تسف حب الخمغم
فيها اثنتان واربعون حلوبة
سودا كخافية الغراب الاسعم
اذ تستبيلك بدى غروب واضح
عذب ومقبله لذىذ المطعم
وكان فارة تاجر بقسيمة
سبقت عواضها اليك من الغم
اوروضة انفنا تضمن نبتها
غيث قليل الدمن ليس بمعلم
جادت عليها كل بكر حرة
فتركن كل قرارة كالدرهم
سحا وتسكابا فكل عشية
يجري عليها الماء لم يتصرم
وخلا الذباب بها فليس ببارح
نغردا كفعل الشارب المترنم

هزجا يعك ذراعہ بذراعہ
قدح المكب على الزناد الجندم

D.

وكثيرة غريباءها مضمولة
ترجي نوافلها ويخشى ذامها
غلب تشذر بالذ حول كانها
جن البدى رواسيا اقدامها
انكرت باطلها وبوت بعقها
عندي فلم يفخر على كرامها
وجزور ايسار دعوت لحتفها
بمغالق متشابه اجسامها
ادعو بهن لعافر او مطفل
بذلت لجيران الجميع لعامها
فالضيف و الجار الجنيب كانما
هدطا بتالة مخصبا اهضامها
تاوي الى الاطناب كل رذية
مثل البلية قالص اهدامها
ويكللون اذا الرياح تناوحت
خلجا تمد شوارعا ايتامها

2. (a) Give the roots of the following and trace their meanings :— 9

- يكللون - حصد - هاديات - تقريب - ارخاء - درير - ضليع

جمادي - مشمولة

(b) What is بلية ? Derive its meaning. What was the origin 5
of the custom suggested by its meaning ?

- (c) Give the gender of **عافر** and **مظفل**. Account for the exception, if any, to the general rule. Illustrate your answer. 5
- (d) Why is **دوابر** plural in form and not dual? 2
- (e) What is the **وجه الشبه** in the fourth *bait* of extract A? 6
- What is the real idea expressed in the fifth *bait* of the same extract, as suggested by the words **هَاديَات** and **نَحَر**? 6

3. Explain fully, enumerating all the points of resemblance:— 10

وإذا تغالي لحكما وتحسرت
وتقطعت بعد انكلال خدامها
فلها هباب في الزمام كانها
صبياء خف مع الجنوب جهامها

Show how the idea of 'swiftness' has been gradually developed in the last line. Is there any indication in the above line to show what part of the day and season of the year are intended?

4. Compare Imra-ul-Qais and Labid. What inference do you draw from a comparison of Labid's lines quoted in Question 3 with the following?— 9

مسيح إذا ما السابحات على النوى
أثرن الغبار بالكديد المركل

5. Translate into English:— 10

ان الرسول انور يستضاء به
مهتد من سيوف الله مسلول
في عصة من قرينش قال قائلهم
ببطن مكة لما اسلموا زونوا
زالوا فما زال انكاس ولا كشف
عند اللقاء ولا ميل معازيل
شم العرائين ابطال لبوسيم
من نسج داؤد في العيج سراويل
بيض سوابغ قد شكت لها حلق
كانه حلق القفعاء مجدول

6. Give in Arabic a brief sketch of the life of the author of the *Qasidah* from which the above extract is taken. 7
7. (a) Scan the fourth *bait* of the above extract and name the metre. 3
(b) Parse the fifth *bait*. 6
8. Explain the following lines and give their real significance :— 10

شرفنا على ذكر العبيب مدامة
سكنا بها من قبل ان يخلق الكرم
لنا البدر غس وهي شمس يديرها
هلال و كم يبدوا اذا مزجت نجم
ولولا شذاها ما اهديت لكانها
ولولا سناها ما تصورها الوهم
و لم يبق منها الدهر غير حشاشة
كان خفاها في صدر الغبي كتم
فان ذكرت في النحي اصبح اهله
نشاري ولا عار عليهم ولا اثم

ARABIC.

SECOND HONOURS PAPER.

Examiner—SHAMS-UL-ULMA ABU NASR MD. WAHRED. M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate into English :—

10

قال له موسى هل اتبعك على ان تعلمن مما علمت رشدا
قال انك لن تستطيع معي صبرا وكيف تصبر على ما لم تحط
به خبرا قال ستجدني ان شاء الله صابرا ولا اعصى لك امرا

قال فان اتبعنني فلا تسألني عن شيء حتى احدث لك منه
ذكرا فانطلقا حتى اذا ركبنا في السفينة خرقها قال اخرقتها لتغرق
اهلها لقد جئت شيئا امرا قال الم اقل انك لن تستطيع
معى صبرا *

2. (a) Give the meaning of ما and زمان of the following:— 9

لتغرق - لا تسألني - لم تحط - تعلمن - اتبع - لم اقل

(b) Distinguish the difference between the use of هل and في in 5
اخرقتها and هل اتبعك, and illustrate with examples the different uses
of the same.

(c) Give different readings of وشدا and فلا تسألني in the above 6
extract, and state the difference of meanings caused by such changes.

3. State under what circumstances اسم المنصرف becomes فير 4
غير اسم and vice versa.

4. Translate into English either A or B:— 10

A.

روي الحارث بن همام قال نظمني واخذانا لي ناد لم
يغضب فيه مئاد ولا كبا قدح زناد ولا ذكت نار عناد فبينما نحن
نتجاذب اطراف الاناشيد وتوارد طرف الاسانيد اذ وقف بنا
شخص عليه سمل وفي مشيه قزل فقال يا اخير الذخائر وبشائر
العشائر عما صباحا وانعموا امطباحا وانظروا الى من كان ذا ندى
وندى وجدة وجدي وعقار وقري ومقار وقري فما زال به قطوب
الخطوب وحروب الكروب وشر شر الحسود وانتياب النوب السود
حتى صفرت الراحة وفرغت الساحة وغار المنبع ونبا المربع
واقوى المجمع واقض المضجع واستحالت الحال واعول
العيال وخلت المرباط ورحم الغابط واودي الناطق والصامت
ورثى لنا الحاسد والشامت والذا للدهر الموقع والفقر المدقع *

B.

الحمد لله الاول قبل كل اول و الآخر بعد كل آخر و القادر على كل شيء بغير انتقال و الخالق خلقه من غير شكل ولا مثال و هو الفرد الواحد من غير عدد و هو الباقي بعد كل احد الى غير نهاية و لا امد له الكبرياء و العظمة و البهاء و العزة و السلطان و القدرة تعالى عن ان يكون له شريك في سلطانه او في وحدانيته نديد او في تدبيره معين او ظهير او ان يكون له ولد او صاحبه او كفء احد لا تحيط به الالهام و لا تحويه الاقطار ولا تدركه الابصار و هو اللطيف الخبير احمد على الاله و اشكره على نعمائه حمد من افردة بالحمد و شكر من رجا بالشكر منه المزيد و استهديه من القول و العمل لما يقربني منه و يرضيه و ايرسني به ايمان مخلص له التوحيد و مفرد به التمجيد ❦

5. (a) Give the force of و in نظمنا و احدثنا and illustrate with examples the various meanings of the same. 6

(b) Explain the difference, if any, between بينما and ينما and give examples. 2

(c) Give the opposite numbers of any ten of the following:— 10

زناد - اناشيد - اسانيد - ندى - عقار - قرى - قرى - نوب -
مرابط - نديد - ظهير - كفء - الء - نعماء *

6. (a) Translate into English:—

10

و ليعلم الناظر في كتابنا هذا ان اعتمادي في كل ما احضرت ذكره فيه مما شرطت اني راسمه فيه انما هو على ما رويت من الاخبار التي انا ذاكرها فيه و الاثار التي انا مسندها الى روايتها فيه دون ما ادرك يحجج العقول و استنبط بفكر النفوس الا اليسير القليل منه اذ كان العلم بما كان من اخبار الماضين و ما هو

كأن من انباء الكاذبين غير واصل الى من لم يشهدهم ولم يدرك زمانهم الا باخبار المخبرين و نقل الناقلين دون الاستخراج بالعقول والاستنباط بفكر النفوس فما يكن في كتابي هذا من خبر ذكرناه عن بعض الماضين مما يستنكرة قارئه او يستشعده سامعه من اجل انه لم يعرف له وجها في الصحة ولا معنى في الحقيقة فليعلم انه لم يأت في ذلك من قبلنا وانا آتي من قبل بعض ناقليه ايضا و انا انما ادينا ذلك على نحو ما ادى اليها *

(b) Comment on ما يكن and من اجل in the above extract. Give 6
other instances of a similar nature to من اجل and state what would be the meaning of اجل if it were used without من.

(c) Give the صيغة of انى واسمه and انا مسندها and انا ذاكرها - If 6
these were used in صيغة مضارع, what change of meaning or sense would then take place ?

7. Write in Arabic the descriptions of جزيرة النساء and حضرموت 10
as given by القزويني in his معجم البلدان.

ARABIC.

THIRD HONOURS PAPER.

Examiner—SHAMS-UL-ULMA ABU NASR MD. WAHEED, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English any three of the following extracts:—

A.

اما بعد سلامي عليك - فهذا كتاب اليك - ينبئك على 24
وعن شوقي وعن ردي ولا ازيدك علما - اني ما كتبتك من

دواة ولا اجريت عليه قلما - و لكفها دموع شوق سالت على
القرطاس - وجرت على حركات الخواطر والانفاس - وهبت عليه
حرارة كبدي بالاشواق - ووجدني بالفراق - فبينما هي عقيقة حمراء -
اذ صارت فحمة سوداء - إلا وإن كتابي هو قلبي ولساني - اما
تراه على رقتة و لطف عبارته وصدق طويته بين يديك مقبلاً
عليك - ينشره الشوق ويطويه لا يخفى امرأ - ولا يكتم عنك
سراً - وتلك صفات لساني و قلبي معك فما الذي ابتغيه بعد
وقد بعثت اليك بالاصغرين - وما انا إلا بهدين - نعم ارجو بفاك
ممتعاً بنعمك - لاكون على الدوام محل نظر *

B.

24 الامر المعتبر في العلم هو غايته لا مقداره فيجب ان تكون
غاية العلم تحصيل الحكمة و اصلاح الصيت لكي يصير الانسان
به افضل ما كان و اسعد و افيد و اكرم و انشط - و اذا تقدم الناس
ماتياً و اعملوا تقدمهم الادبية و كانوا جادة الانعطاف - و على كل
مقلد ان ينفذ في ما فعله غيره بل ان يفعله بنفسه و ان
يرجع على نفسه بهذه الوسائط انى حوَّله ايلها العذبة الالهية -
و تدريب الانسان لنفسه و ضبطه لما اسان للتحكمة العملية
و يجب ان يتخللها اعتبار الذات الذي يصدر عنه الامل رفيق
القوة و ابو الفجاج - لأن من كان امله و طيداً قدر على عمل
الغرائب - و اعتبار الانسان لنفسه و تدريبه اياها من اعظم واجبات
هذه الحيواة لان الله سبحانه و تعالى يطلب منا ان نعتبر
اجسادنا و عقولنا و قوارنا - و ارتباطنا بالبشر يطلب منا ذلك

ايضاً - بل ان قوانا تستدعي ان نعطيا حقها اللازم من الاهتمام -
فعلينا ان نلغز ما فينا من الشر ونبنى عوفاً عنه الخير *

C.

23 افضل الدروس وأكثرها فائدة ما كانت غايته مجدودة - ومن
اتقن فرعاً من العلوم اتقاناً كاملاً استفاد منه في كل حين - فلا
يكفي الاقتصار على الكتب و معرفة مواضيعها ورجوع اليها عند
الاحتياج - لان من كان علمه في كتابه كان خطأه اكثر من صوابه -
بل على العالم العامل ان يستصحب علمه في كل أين وأن -
وإلا فلا يُعدُّ عالماً لانه ما المنفعة اذا كان للانسان بدرة من المال
و ليس في يده فلس *

D.

في اليوم الثامن صباحاً قويت الريح فاخذ البحرية ينشرون
القلاع العلوية وجعلوا ما كان في المركب مرتباً مشدوداً لكي
يصير بندر ما يمكن من الخفة والسهولة - وعند الظهر هاج
البحر و تعالت امواجه جداً - فاخذ مركبنا يمشي بموخرة الى
قدام و مقدمه الى الوداء - ثم دخله ميلا كثيرة وظننا مرة او
مرتين ان المرساة قد انقطعت - وكان التوء عظيمًا حتى انظر
الخوف والارتباك في اوجه الفتية نفسهم - وكان الرئيس
مجتهداً في التدابير اللازمة لاجل وقاية المركب *

E.

فيما كنا ذات يوم ذو صباح بهج ذاهبين في طلب الصيد -
اذا غبابة كثيفة جداً قد طلعت علينا حتى لم نعد نري البر مع

انما لم نكن ابعد من نصف فرسخ عن الشاطي - فكنا نشغل
المجاديف ونجري و لكن لم نعلم الى اين ولا في اي طريق -
فصرنا ذلك النهار كله و الليل بعده على هذه الحالة المتعبة
المرتبكة حتى اقبل الصباح و اذا بنا قد توغلنا في البحر عوض
ان نقرب من البر وصرنا بعيداً مقدار فرسخين عن الشاطي -
ثم بعد مقاساة اتعاب جريئة و تطويح انفسنا في اخطار قوية
ابتدئ زيج الشمال تعب عذد الصباح و كانت تسوقنا حتى
وصلنا الى مرسى مرساتنا *

2. Translate into Arabic :—

A.

- (a) Do not return evil for evil.
(b) Those who earn an honest living are the beloved of God.
(c) The best of alms is that which the right hand giveth and the left hand knoweth not of.
(d) Charity that is concealed appeaseth the wrath of God.
(e) He who neither worketh for himself, nor for others, will not receive the reward of God.

15

B.

In the capital as well as in the provincial towns were numerous richly endowed colleges, hospitals, and infirmaries for both sexes. Each college had a separate principal; and the state hospitals were under the control of a prominent physician, called the Director of Hospitals. In the reign of Muktafi, the celebrated Abū Bakr al-Nāzī held this high and responsible office. A Kāzī seems to have been attached to each infirmary, but it is difficult to say what his duties were.

15

ARABIC.

FOURTH HONOURS PAPER.

Examiner—MAULAVI MD. ABU TAHIR.*Candidates are required to give their answers in their own words as far as practicable.**The figures in the margin indicate full marks.*1. **Translate**, adding explanatory notes where necessary :—

A.

شربنا على ذكر العبيب مدامة
 سكرنا بها من قبل ان يخلق الكرم
 لها البدر كلس وهي شمس يديرها
 هلال وكم يبدو اذا مزجت نجم
 ولولا شذاها ما اهلكت لسانها
 ولولا سناها ما تصورها الوهم
 ولم يبق منها الدهر غير حشاشة
 كان خفاه في صدور النهى كتم
 وان ذكرت في الحي اصبحت اهلته
 نشاوي ولا عار عليهم ولا اثم
 ومن بين احشاء الدنان تصاعدت
 ولم يبق منها في الحقيقة الا اسم
 وان خطرت يوما على خاطر امرئ
 اقامت به الافراح وارتحل الهم
 ولو نظر القدمان ختم انائها
 لا سكرهم من دونها ذلك الختم

10

B.

10

هل غادر الشعراء من مترده
 ام هل عرفت الدار بعد توهم
 يا دار عبلة بالجواء تكلمي
 و عمي مباحا دار عبلة واسلمي
 فوقفت فيها فاقتي و كانما
 فدن لاقضي حاجة المتلوم
 وتحل عبلة بالجواء و اهلنا
 بالعزن فالصمان فالمتنلم
 حييت من طلل تقادم عمدة
 اقوى واقفر بعد ام الميثم
 حلت بارض الزائرين فاصبحت
 عسرا على طلابك ابنة محزم
 علقتما عرغله واقتل قوميا
 زعما لعمر ابيك ليس بمزتم
 و لقد نزلت فلا تظني غيره
 مني بمنزلة المحب المكرم

2. Name the poets of both the preceding extracts, and give a short account of only one of them. What is the theme in extract

8

A ? Who is عبله ? Write what you know about her.

3. Explain the allusions in the following verses :

12

[Not more than six must be tried.]

(a)

وما ذرفت عيناك الا لتضربي
 بسهميك فى اعشار قلب مقتل

- (b) رواد كجوف العير قفر قطعه
 به الذئب يعوي كالخليع المعيل
 (c) درير كخزروف الوليد امرة
 تتابع كفيه بخيط موصل
 (d) وجلا السيول عن الطلول كانها
 زبر تجدد متوننا اقلامها
 (e) غلب تشدر بالذحول كانها
 جن البدي زواسيا اقدامها
 (f) حرف اخوها ابوها من مبهجة
 وعمها خالها قوداء شميل
 (g) شد النصار ذراعا عيطل نصف
 وامت فجارها نكد شاكيل
 (h) فى عصة من قريش قال قائلهم
 بطن مكة لما اسلموا زورا

4. Explain the sense of *any two*, but *not more than two*, of the following extracts in Arabic:—

(١)

نمشي القراد عليها ثم يرزقه
 منها لبن و اقارب زهايل
 عيرانة قدفت بالتحض عن عرض
 مرققتها عن بذات الزور مفتول
 كانما فات عينيها ومدبها
 من خطمها ومن اللحيين برطيل

تمر مثل عسيب النخل ذا خصل
 فى غارز لم تخونه الاحاليل
 قنواء فى حرميها للبصير بها
 عتق مبين و فى الخدين تسهيل
 تخدي على يصرات وهي الاحقة
 ذوابل مسهن الارض تحليل
 سمر العجايات يترك الحصى زيماء
 لم يقهرن رؤس الاكم تفعيل
 (٢)

فبتلك اذ رقص اللوامع بالضحى
 و اجتاب اودية السواب اكاهما
 اقضى اللبانة لا افوط ربيعة
 او ان يلوم بحاجة نوامها
 اولم تكن تدري نوار بانفسي
 وصال عقد حبال جدامها
 تراك امكنة اذا ام ارضها
 او يرتبط بعض النفوس حمامها
 بل انت لا تدريين كم من ليلة
 طلق لديد لهوها و ندامها
 فدبت سامرها وغاية تاجر
 وافيت اذ رفعت و عز مدامها
 اغلى السباء بكل ادكن عاتق
 او جونة قدحت و فض ختامها

(٣)

هل نار ليلى بدت ليلا بني سلم
 ام بارق لاح فى الزوراء قالعلم
 ارواح نعمان هلا نسمة سحررا
 وماء وجرة هلا نهلة بقم
 يا سائق الظعن يطوى البيد معتسفا
 طى السجل بدات الشيخ من اضم
 عج بالحمى يارعاك الله معتمدا
 خميلة الضال ذات الرند والخزم
 وقف بسلع وسل بالجزع هل مطرت
 بالرقمتين اثيلات بمنجسم
 فاشدتك الله ان جزت العقيق ضحى
 فاقر السلام عليهم غير محتشم
 وقل تركت صريعا فى ديار كم
 حيا كميث يعير السقم للسقم

5. Explain not more than five of these verses with reference to the context:— 10

وقوا بهما معبى على مطيهم
 يقولون لا تهلك اسى وتجمل
 وان لك قد سائتك مني خليفة
 فسلى ثيابي من ثيابك نفسلي
 كبر المقاناة البيضاء بضرة
 غذاها نمير الماء غير محلل

فادبرن كالجزع المفصل بينه
 بجيد معم فى العشيرة مخول
 والعين ساكنة على اطلالها
 عودا تاجل بالفضاء بهامها
 لمعفر قد تنزع شلوه
 غبس كواسب لا يمن طعامها
 تنفى الريح القدي عنه وافوطه
 من صوب سارية بيض بعاليه
 ترمى الغبوب بعيني مفرد لهق
 اذا توقدت الحزان والميل

6. Who composed the قصيدة بلغت سعاد ? Give a short account of the circumstances of its composition. 5

7. Describe the horse of امرئ القيس in your own Arabic. 5

8. Translate into Arabic:— 20

In the meantime, the prince Firoz Shah was carried through the air with a prodigious swiftness, as I said before; in less than an hour's time he got so high, that he could not distinguish anything on the earth; but mountains and plains seemed confounded together. It was then he began to think of returning from whence he came, and thought to do it by turning the same peg the contrary way, and pulling the bridle at the same time: but when he found that the horse still rose with the same swiftness, his astonishment was extremely great. He turned the peg several times, one way and then the other, but all in vain. It was then he grew sensible of his fault, in not taking the precautions to learn how to guide the horse before he mounted him. He immediately apprehended the great danger he was in; but the quickness of that apprehension did not deprive him in the least of his reason. He examined the horse from head to tail with great attention, and perceived another peg, smaller than the other, behind the horse's right ear; he turned that peg, and presently perceived that he descended in the same oblique manner as he mounted, but not so swiftly.

ARABIC.

FIFTH HONOURS PAPER.

Examiner—MAULAVI MD. ABU TAHIR.*Candidates are required to give their answers in their own words as far as practicable.**The figures in the margin indicate full marks.*

1. Translate into English :—

12

لا فيبها غول غائلة كما في خمر الدنيا كالخمار من غاله يغوله اذا
افسده ومنه الغول ولا هم عنيا بنزفون يسكرون من نزف الشارب
فهو نزيف ومذروف اذا ذهب عقله افرد بالنفى وعطفه على
ما يعمه لانه من عظم فساد كانه جنس برأسه وقرأ حمزة والكسائي
بكسر الزاي وتابعهما عام في الواقعة من انزف الشارب اذا نفذ
عقله او شرابه واصله بالمفاد يقال نزف المطعون اذا خرج دمه
كله ونزحت الركبة حتى نزفتا وعندهم قاصرات الطرف قصرن
انصارهن على ارجاس عيين نجل العيون جمع عيذاء كانهن
بيض مكفون شبتن ببيض النعام المصون عن الغبار ونحوه
في الصفاء والبياض المخلوط بالذنى صفرة فانه احسن الوان
الابدان فاقبل بعضهم على بعض يتساءلون معطوف على يطاف
عليهم اي يشربون فيتحدثون على الشراب قال *

وما بقيت من اللذات احاديث الكرام على المدام

و التعبير عنه بالماضي للتاكيد فيه فانه الذ تلك اللذات الى
العقل وتساؤنهم عن المعارف والفضائل وما جرى لهم
و عليهم في الدنيا *

2. Distinguish between لا نافية - لا نافية and لا نفى الجنس and
state their governing power. Illustrate their use with examples.

3. (a) Relate in Arabic the stories connected with the following 6
lines:—

(١) وانك لو رأيت ابا عمير

ملأت يديك من غدر و ختر

(٢) الالمعي الذي يظن بك الظن كان قد رأى و قد سمعا *

(b) Explain the following lines with reference to the context :— 6

(١) و اذا نظرت اليك من ملك

و البحر دونك زدني نعماً

(٢) اماوى ما يغني الشراء عن الفقير

اذا حشجت يوماً وضاق بها الصدر

4. Translate into English either A or B :— 10

A.

ابني لا تظلم بمكة لا الصغير و لا الكبير
و احفظ محارمها بني و لا تغرنك الغرور
ابني من يظلم بمكة يلق اطراف الشور
ابني يضرب وجهه ويلج بخديه السعير
ابني قد جربت ما فوجدت ظالمنا يدور
الله امناها و ما بنيت بعرضها قصور
و الله امن طيرها و العصم تامن في ثبير
و لقد غزاها تبع فكسا بنيتها الحبير
واذل زبي ملكه فيها فاروقى بالندور
يمشي اليها حافيا بغنائنا الفايعور
ويظل يطعم اهلها لحم الماوى و الجزور
يسقيهم العسل المصفي و الرحيض من الشعير
و الغيل اهلك جيشه يرمون فيها بالصخور
و الملك فى اقصى البلاد و فى الاعاجم و الجريد

B.

و اما سبب ارتفاع حجاب الحواس بالذوق فعلي ما اصفه
 لك وذلك ان النفس الناطقة انما ادراكها و افعالها بالروح
 الحيواني الجسماني وهو بخار لطيف مركزة بالتجويف
 الايسر من القلب على ما في كتب التشريح الجالينوس وغيره
 وينبعث مع الدم في الشريانات والعروق فيعطى الحس والحركة
 و سائر الافعال البدنية ويرتفع لطيفه الى الدماغ فيعدل من برده
 و تتم افعال القوي التي في بطونه فالنفس الناطقة انما تدرك
 و تعقل بهذا الروح البخاري وهي متعلقة به لما اقتضته حكمة
 التكوين في ان اللطيف لا يؤثر في الكثيف و لما لطف هذا
 الروح الحيواني من بين المواد البدنية صار محلا لاثار الذات
 المبينة له في جسمانيته وهي النفس الناطقة و عارت اثارها
 حاملة في البدن بواسطته *

5. (a) Give the forces of لا تظلم in the following:— and تغرن - لا تظلم 3
 لا الصغير ولا الكبير.

(b) What is the signification of من يظلم : Give other 3
 meanings of من with examples.

(c) What are the imports of على and من ب 3

مركزة بالتجويف الايسر من القلب على ما في كتب
 التشريح *

(d) Give the technical significations of تجويف and تكوين. 3

6. Give the opposite numbers of any ten of the following ; and, in 10
 cases of plurals, state under what class they come :—

مهاوى - خد - سكير - بعير - اعاجم - دماغ - حجاب - رحيض
 شريانات - عروق - صخور - قوى - جزور - عوصه

7. Give in your own Arabic the substance of the idea in connexion with المجاز والمجازاة as discussed by اللغزازاني in his مختصر المعاني. 14

8. Translate into Arabic :— 20

Shah Jehan learned these events with the deepest dismay. He saw the formidable character of the rebellion, and dreaded that, whatever the issue might be, he himself could scarcely fail to be crushed. He therefore used all his power to support his destined heir; and even expressed an ardent wish to take the field along with him, though he was unfortunately persuaded to give up his intention. Orders were sent to Soliman to grant favourable terms to Sujah, and to hasten against the more dangerous enemy; and Dara was strongly advised to await his arrival with a large reinforcement. That prince accordingly placed his army, consisting of 100,000 horse, in a strong position along the banks of the Chumbul, which commanded the approach to Agra, and covered his camp with a powerful line of entrenchments.

ARABIC.

SIXTH HONOURS PAPER.

Examiner—MAULAVI MD. ABU TAHIR.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

A. Muslim History.

1. Estimate the character of Omar and give an account of the principal achievements of his Caliphate. 10

2. *Either,*

Sketch the career of Saladin and enumerate the events which led to his rise. 10

Or,

Sketch the reign of Hārūn al-Rashīd and enumerate its principal glories. 10

3. Write notes on *any five* of the following :— 10

(a) The Battle of Badr.

(b) الخلفاء الراشدين.

(c) The Khārijis.

(d) Tarick bin Ziad.

(e) Abū Muslim.

(f) The Barmekides.

B. History of Arabic Literature.

1. Enumerate the principal anthologies of pre-Islamic Arabia. 10

2. Enumerate the important collections of Ḥadīth, with a brief account of their compilers. 10

3. *Either,*

Give an account of the growth of scientific literature in the Abbasid period. 10

Or,

Enumerate a few of the most eminent philosophers and scientific men who flourished during the Abbasid age. 10

4. Write notes on *any five* of the following:— 10

(a) Ta'abbata Sharran.

(b) Al-Kashshāf.

(c) Abu 'l-'Atāhiya.

(d) Luṣūmiyyāt.

(e) Kitāb al-Yamīnī.

(f) Fusūṣu 'l-Hikam.

C. *Rhetoric and Prosody.*

1. Define the following terms, illustrating your answer with examples:— 10

طرد وعكس - تورية - ايجاز - اطناب - حسن تعليل (a)

وصل - خروج - عروض - فاعلة - دخيل (b)

2. Name, with examples, the different kinds of استعارة in relation to مستعار له - مستعار منه - جامع. 10

3. Quote lines illustrating the following metres and scan *any two* of them:— 10

بحر مديد محدوف مقصور - بحر رجز مشطور - بحر سريع

مكحول مكشوف بحر منسرح مطوي مقطوع *

ARABIC.

FIRST PASS PAPER.

Examiner—MAULAVI MD. ABU TAHIR.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English *any two* of the following:— 13

A.

خيلى ان اسم قد يتفرج

من كان بينى الحق فالحق ابلغ

و ذو الصدق لا يرتاب و العدل قائم
على طرقات الحق و الشر اعوج
واخلق ذى التقوى و ذى البرقى الدجى
لمن سراج بين عينيـه مسرج
و نيات اهل الصدق بيض نقيـة
و السن اهل الصدق لا تتلجلج
و ليس لمخلوق على الله حجة
و ليس له من حجة الله مخرج
و قد درجت من قرون كثيرة
و نحن سئمضي بعدهن و ندرج
و يدك يا ذا القصر في شفاته
فانك عنا مستخف و تزعم
و انك عما اخترته لمبعد
و انك مما في يديك لمخرج
الا رب ذي غيم غدا في كرامة
و ملك و تيجان الخلود متوج
عمرك ما الدنيا لديك نفيسة
و ان زخرف الغادون فيها و زبرجوا
و ان كانت الدنيا الى حبيبة
فاني الى حظي من الدين احوج

B.

كان خيولنا كانت قديما
تسقي في قحوفهم الحلييا

فموت غير نافرة عليهم
 تدوس بنا الجماجم و التريبا
 يقدمها و قد خضيت شواها
 فتى ترمى الحروب به الحروبا
 شديد الخفـزوانة لا يبالي
 اصاب اذا تنمر ام اصيبا
 اعزمني طال هذا الليل فانظر
 امـنـك الصبح يفرق ان يعـبا
 كان نجـومه حلى عليه
 و قد حذيت قوائمه الجنوبا
 كان الفجر حب مستـهـزار
 يراعي من نجنته رقيبا
 كان الجو قاسي ما اقلسي
 فصار سواده فيه شحوبا
 كان دجاء يجذبها سهادي
 فليس تغيب الا ان يغيبا
 اقلب فيه اجفاني كاني
 اعد به على الدهر الذنوبا
 و ما ليـل باطول من نهـار
 يظل بلحظ حسادي مشوبا

C.

اكره لغيرك ما لنفسك تكره
 و افعل بنفسك فعل من يتنزه

وادفع بصمتك عنك خاطرة الخنا
 حذر الجواب فانه بك اشبه
 وكل السفه الى السفاهة وانتصف
 بالعلم او بالصمت ممن يسفه
 ودع الفكاهة بالمزاح فانه
 يردي ويستخف من به يتفكه
 والصمت للمرء الحليم وقاية
 يففي بها عن عرضه ما يكره
 لا تنس حلمك حين يقرعك الاذي
 من كل ما يجني عليك ويحبه
 ولربما جمع السفاهة بذى العجبي
 حتى يذلل الدنى الاسفه
 ولربما نهضت عنك ذوى الخنا
 بالصمت الا احجموا و تنهضوا
 ان الزمان لاهله لمؤدب
 بصروفه ميقظ ومنبه
 قل للذين تشبهوا بذوى التقى
 لا يلعبن بنفسه متشبهه
 ان القلوب اذا طوت اسرارها
 ابدت لك الاسرار منها الوجه

D.

لك يا منازل في القلوب منازل
 افقرت انت وهن منك اهل

يعلمن ذاك و ما علمت و انما
اولا كما ببكي عليه العاقل
و انا الذي اجتلب المنية طرفه
فمن المطالب و القليل القاتل
تخلو الديار من الظباء و عنده
من كل تابعة خيال خاذل
اللاء افتكها الجبان بمهجتي
و احبها قربا اليّ الباخل
الراميّات لنا و هن فوافر
و الخاتلات لنا و هن غوافل
كافاننا عن شبيههن من المها
فلهن فج غير التراب حبال
من طاعني ثغر الرجال جأذر
و من الرماح دمالج و خلاخل

2. (a) Rewrite extract C, giving diacritical points. 8
- (b) Scan the last *bait* of extract D. 5
3. Give a brief sketch of the life of Abul-Atahiah. Name some of 9
- his contemporaries, and show the position he occupied among them.
4. Point out all the words in the above extracts that occur as 6
- غير المنصرف, and give reasons.
5. Translate into English any two of the following :— 12

A.

اني من القوم الذين اذا اتدوا
بدؤا بحق الله ثم النائل
المانعين من الخذا جاراتهم
و العاشدين على طعام النازل -

والخالطين فقيروهم يغنيهم
 والباذلين عطاءهم للسائل
 والقائلين لدى الوغى اقرانهم
 ان المنية من وراء الوائل
 والقائلين فلا يعاب كلامهم
 يوم المقامة من قضاء الفاصل
 خزر عيونهم الى اعدائهم
 يمشون مشى الاسد تحت الوابل
 ليسوا بانكلس ولا ميل اذا
 ما الحرب شبت اشعلوا بالشاعل

•B.

وداع بلحن الكلب يدعو ودونه
 من الليل سجفا ظلمة وغيومها
 دعا وهو يرجو ان ينبه ان دعا
 فتى كابن ليلي حين غارت نجومها
 بعثت له دهماً ليست بلقىة
 تدرك اذا ما هب نكسا عقيمها
 كان المحال الغيرفى حجراتها
 عذارى بدت لما اصاب حميمها
 غضوبا كحيزوم النعامة احمشت
 باجواز خشب زال عنها هشيمها
 محضرة لا يجعل الستر دونها
 اذا الموضع العوجاء جال برمها

C.

و قال حسان بن ثابت رضى الله عنه

المال يغشى رجالا لا طباح بهم
كاسيل يغشى اصول الدندن البالي
اصون عرضي بمالي لا ادنسه
لا بارك الله بعد العرض فى لمال
احتال للمال ان اودى فاجمعه
وليس للعرض ان اودى بمحتال

و قال ابن حرمه

اغشى الطريق بقبتي ورواقها
واحل في نشر الزاها فاقيم
ان امراً جعل الطريق لبيته
طنباً وانكر حقه للئيم

و قال الذبابة الذبياني

له بغناء البيت سوداء فخمة
تلقم اوصال الجزور العراعر
بقية قدر من قدور توزئت
لال السجلاح كبرا بعد كابر
تظل الا ماء يتدردن قديحها
كما ابتدرت سعد ميلا قراقر

6. (a) Derive the following words and trace their meanings:—

6

انتصف - مشوب - قاسى - عوجاء - انتدوا - اقفر

(b) Analyse:—

8

ليسوا بانكاس ولا ميل اذا

ما الحروب شبت اشعلوا بالشاعل

(c) Give the تليل of احنال - غارت - يوناب - الغادون - 8

* دع - مشوب - اصاب.

(d) Account for the masculine form of الموضع and state the rule. 4

Give other examples.

(e) Comment on the gender of عقيم and غضوب and state the rules, 5

if any.

(f) Give the singular or the plural, as the case may be, of:— 6

ميل - عذاري - والي - مها - دهماء - مريض - داعم - ربا

اماء - قبة - حيزوم - منية

7. Explain in Arabic:—

10

يصرف الامر فيها طين خاتمه

ولوتطلس منه كل مكتوب

يحط كل طويل الرمح حامله

من سرج كل طويل الباع يعبوب

كان كل سؤال في مسامعه

قميص يوسف في اجفان يعقوب

اذا غزته اعاديه بمسألة

قد غزته بجيش غير مغلوب

ARABIC.

SECOND PASS PAPER.

Examiner—A. F. HARLEY, Esq., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English :—

10

ام حسبت ان اصحاب الكهف والرقيم كانوا من آياتنا
عجبا اذ اوي القتيبة الى الكهف فقالوا ربنا آتنا من لدنك
رحمة و هيبي لنا من امرنا رشدا فصرنا على اذانهم في الكهف
سنيين عددا ثم بعثناهم لنعلم اي الحزبين احصى لما لبثوا
امدا نحن نقص عليك نباهم بالحق انهم فتية امنوا ببرهم
وزدناهم هدى وربطنا على قلوبهم اذ قاموا فقالوا ربنا رب
السموات والارض لن ندعوا من دونك الها لقد قلنا اذا شططا *

2. (a) Give with illustrations the various meanings of ام in Arabic. 5
What does it signify in the first line.

(b) To what class of verb does حسبت belong? Give its meanings other than that in which it is used in the above extract. 5

(c) What do the commentators say regarding اصحاب الكهف والرقيم 6
Are they one and the same? Give the opinion of Jalalain in connexion with this.

(d) Give the original form of فتية and write its opposite number. 3

3. Translate one of the following extracts into English :— 12

A.

ثم بسط يده بعد ما انشد و قال انجز حر ما وعد وسر
خال اذ رعد فنبذت الدينار اليه و قلت خذها غير ماسوف
عليه فوضعه في فيه و قال بارك اللهم فيه ثم شمر لانتشاء بعد
توفية الثناء فذشأت لي من فكاكته نشوة غرام سهلت على

انتفاف اغترام فجردت له دينارا آخر وقلت هل لك في
ان تدمه ثم تضمه فانشد مرتجلا وشدا عجلا *

تبأ له من خادع مملوق
اصفر ذي وجبين كالمنافق
يبدو بوصفين لعين الوامق
زينة معشوق ولون عاشق
وحبه عند ذوى الحقائق
يدعو الى ارتكاب سخط الخالق
لولا لم تقطع يمين سارق
ولا بدت مظامة من فاسق
ولا اشمأز باخل من طارق
ولا شكا الممطول مطل العائق
ولا استعبد من حسود راشق
وشر ما فيه من الخلائق
ان ليس يغني عنك فى المضائق
الا اذا فر فرار الابق
واها لمن يقذفه من خالق
ومن اذا ناجاه نجوى الوامق
قال له قول المحقق الصادق
لا رأي في وملك لي ففارق

B.

فقال له صاحبه ويلك يا بني انما يضن بالضنين ويفانس
فى الثمين لكن انا لا آتي غير المراتي و لا اسم العاتي بمراعاتي

و لا اصاني من بابي انصاني و لا اواخي من يلغي
 الا و اخي و لا امالي من يخيب امالي و لا ابالي بمن صرم
 حبالي و لا اداري من جهل مقداري و لا اعطى زمامي
 من يخفر ذمامي و لا ابذل ودادي لاضدادي و لا ادع ايعادي
 للمعادي و لا اغرس الايادي في ارض الاعادي و لا اسمح
 بمواساتي لمن يفرح بمساآتي و لا ارى التفتي الى من
 يشمت بوفاتي و لا اخص بحبائي الا احبائي و لا استطب
 لدائي غير اودائي و لا املك خلتي من لا يسد خلتي
 و لا اصفي نيتي لمن يتمني منيتي و لا اخلص دعائي لمن
 لا يفعم وعائي و لا افرغ ثنائتي على من يفرغ انائي و من
 حكم بان ابذل و تخون والين و تخشن و ادرب و تجمد
 و اذكرو تخمد *

4. (a) How many meanings has the particle **في** in Arabic? What 4
 meaning does it express in **في**?

(b) Give the **المعنى الاصلي و الاصطلاحي** of 12
 the following: — **اشماز - مجالا - مرتجلا - اعترام - خلايق - نشوة - اققناى - سطور**.

Is the plural **خلايق** correctly used in the above extract? 1

(c) What part of speech is **وك** in Extract B. Give other ex- 3
 amples of similar nature.

(d) Is there any difference between the two **اواخي** in Extract B? 3
 Give their **باب**.

(e) Are the words **استطب** and **طيب** derived from one and the 1
 same root?

5. Give the various significations of the particle **لو** as discussed in 6
 Arabic Grammar, and state what is its **عمل**.

6. Give a short account of **حريري** in Arabic. Why he was so 8
 called?

7. Translate into English either A or B:—

10

A.

قال ابو الريحان الخوارزمي اذا فرضنا ان دائرة معدل
النهار تقطع كرة الارض بنصفين يسمى احد النصفين جنوبا
والاخر شمالا و اذا فرضنا دائرة تعبر على قطبي معدل النهار
وتقطع الارض صاكرة الارض اربعة ارباع ربعان جنوبيان وربعان
شماليان فالربع الشمالي المكشوف يسمى ربعان مسكونا والربع
المسكون مشتمل على البحار والجزائر والانهار والجبال
والمفاوز والبلدان والقرى على ان ما بقى منها تحت
قطب الشمال قطعة غير مسكونة من افراط البرد وتراكم الثلوج
وهذا الربع المسكون قسموها سبعة اقسام كل قسم يسمى اقليما
كانه بساط مفروش من الشرق الى الغرب طولا ومن الجنوب
الى الشمال عرضا وانها مختلفة الطول والعرض فاطولها واعرضها
الاقليم الاول فان طوله من المشرق الى المغرب نحو من ثلاثة
الف فرسج •

B.

الاقليم الاول فجنوبيه ما يلي بلاد الزنج والنوبة والحبشة
وشماله الاقليم الثاني واوله حيث يكون الظل نصف
النهار اذا استوى الليل والنهار قدما واحدة ونصفا وعشرا
وسدس عشر قدم و آخره حيث يكون ظل الاستواء فيه نصف
النهار قدمين وثلاثة اخماس قدم وقد يبتدى من اقصى
المشرق من بلاد الصين ويمر على ما يلي الجنوب من الصين
جزيرة سرنديب وعلى سواحل البحر في جنوب الهند ويقطع
البحر الى جزيرة العرب ويقطع بحر قلزم الى بلاد الحبشة ويقطع

نيل مصر و ارض اليمن الى بحر المغرب فوقع في وسطه
 من ارض صنعاء و حضر موت و وقع طرفه الذي يلي الجنوب
 ارض عدن و وقع في طرفه الذي يلي الشمال بتبامة قريبا
 من مكة و يكون اطول نهار هؤلاء اثنتي عشرة ساعة و نصف
في ابتدائه *

8. (a) Give the technical name of the circle which cuts دايرة معدل 1
 النهار
 (b) What part of speech is اقليم ? Give a few instances having 4
 the same measure. What is its original meaning ?
 (c) Put the vowel-points on the passage underlined. 6

ARABIC.

THIRD PASS PAPER.

Examiner—SHAMS-UL-ULMA ABU-NASR MD. WAHEED, M.A.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

1. Translate *only two* of the following extracts into English :—

A.

35 من اكثر المؤرخين قد اختلفوا في تاصيل عشيرة آل عثمان -
 لانها قديمة العهد - و منشأها في بلاد بعيدة عنهم - فالبعض
 ينسبون هذه العيلة الشريفة الى سلالة عيس بن اسحاق -
 الذي سنه او عوزخان - الذي من نسله سليمان شاه ابو ارطغرل -
 و البعض ينسبونهم الى طايغة اتت من الحجاز بسبب القحط -
 و نزلت في بلاد القرمال - و هم بنو قطورة - و كل فريق
 من المؤرخين ياتي بدلائل و براهين لتأكيد ذلك - و آخر ما
 عندهم ان سلالة آل عثمان متشعبة من بني قطورة و من

العيس بن اسحاق - ونحن هنا لا نريد ان ندخل في هذا البحث - ان مشاهير المؤرخين العثمانيين قد استوفوا ذلك بالتفصيل - واجاد في هذا البحث صاحب تاريخ الدولة العثمانية خير الله افندى الشبير - ولكن غاية ما نقول في هذا الموضوع بوجه الاختصار ان هذه العائلة الشريفة هي اشرف العشائر الاسلامية - وان جد آل عثمان الذي هو سليمان شاه اتى بجماعة سنة ١٢٠٠ ميلادية الموافق سنة ٦٢١ هجرية - ونزل في صكارى بلاد ارمينية الكبرى - ومكث هناك نحو سبع سنوات - وبعد وفات جنكزخان وقع الحرب بين الخوارزمي وعلاء الدين سلطان قونية كبير السلاجقة - فقدم لعلاء الدين خدمات - حتى انتصر على اعدائه بواسطته - وبعد ان مكث هناك مدة من الزمان - اراد ان يعبر بجماعة نهر الفرات - ويدخل الى عربستان - فغرق في ذلك النهر - ودفن في ذلك المكان - وهو الى الآن يعرف بمزار الاتراك - وكان له اربعة اولاد - وهم سنقور تكين - وكون طوغدي - وارطغرل - ودوندر - فرجع سنقور تكين وكون طوغدي الى ناحية الشرق - وبقي ارطغرل ودوندر عند السلطان علاء الدين - وحضرا معه حروبا كثيرة - ثم توفي ارطغرل تاركا ولده عثمان الغازي - وبعد انقراض الدولة السلجوقية - تولوا على تحت السلطنة كما سيأتي *

B.

حكى ان ثعلبا كان يسمى ظالما - وكان له جعري ياربى اليه - وكان مسرورا به - لا يبتغي عنه بدلا - فخرج منه يوما يبتغي

ما ياكل - ثم رجع فوجد فيه حية - فانتظر خروجها - فلم تخرج -
 فعلم انها قد توطنت فيه - وانه لا سبيل الى السكون معها -
 فذهب يبتغي لنفسه جحرا غيره - فالتبى به النظر الى جحر
 حسن الظاهر حصين الموضع - في مكان خصب ذي اشجار
 ملتفة و ماء معين - فاعجبه و سال عنه - فاخبر انه لثعلب
 يسمى معوضا و انه ورثه من ابيه - فناداه ظالم - فخرج اليه -
 و رحب به و ادخله الجحر - و ساله عما قصد له - فقص عليه
 خبره - و شكا اليه ما ناله - فرق له معوض - ثم قال له ان من
 الهمة ان لا تقصر عن مطالبة عدوك - و ان تستفرغ جهدك
 في ابتغاء دفعة - فرب حيلة انفع من قبيله - و الراى عندي ان
 تطلق معي الى ماراك الذي انتزع منك غصبا - حتى
 اطلع عليه - فلعلي اهتدى الى وجه الحيلة - فيرجع اليك
 مسكنك - فان اصوب الراى ما اسس على الروية - فانطلقا
 معاً الى ذلك الجحر - فتامله معوض - و ادرك غرضه منه -
 ثم اقبل على ظالم - فقال له قد شاهدت من مسكنك ما فتح
 لي باب الحيلة في خلاصه - فقال له ظالم اطلعني على
 ما ظهر لك - فقال له معوض ان اضعف الراى سار سم في
 البديهة - ولكن اطلق معي لتبيت عندي ليلتي هذه -
 لانظر ابي فيما ظهر لي - ففعلا - و بات معوض متفكرا في
 ذلك - و جعل ظالم يتامل مسكن معوض - فرأى من سعته
 و طيب تربته و حصانته و كثرة مرافقه ما اسند اعجابه - و حرصه
 عليه - و شرع يدبر الحيلة في غصبه و طرد معوض منه - فلما
 اصبحا قال معوض لظالم اني رايت ذلك الجحر بموضع بعيد

من الشجر والماء - فأصرف نفسك عنه - وهلم اعينك على
 حفر مسكن قريب من جحري هذا - فان هذه الارض خصبة
 متيسرة المرافق - فقال له ظالم ان ذلك لا يمكنني - لان نفسي
 تهلك لبعد الوطن حفيانا - ولا تملك لفقد المسكن سكونا -
 فلما سمع معوض مقالة ظالم وتظاهره من الرغبة في وطنه -
 قال له اني ارى ان نذهب يومنا هذا - فاحتطب حطبا -
 و نربط منه حزميتين - فاذا اقبل الليل انطلقت انا الى بعض
 هذه الخيام - فاتيت بقبس نار - واحتملنا الحطب والقبس -
 وقصدنا مسكنك - فجعلنا الحزميتين على بابه - واضرناهما
 نارا - فان خرجت الحية احترقت - وان لزمت الجعرة
 اهلكها الدخان *

C.

الجد في الجد والحرم في الكسل
 فانصب تصب عن قريب غيلة الامل
 وشم بروق المعالي في مخائلك
 بناظر القلب تكفى مونة العمل
 واصبر على كل ما ياتي الزمان به
 صبر الحسام بكف الدارع البطل
 لا تسمين على ما فات ذا حزن
 ولا تظل بما اوتيت في جدل
 فالدهر اقصر من هذا وذا امدا
 وربما حل بعض الامور في الوجل
 وجانب الحصر والاطماع تعظ بما
 تخرجو من العز والتأيد في عجل

وراحب العزم والعزم الذين هما
 فى الحل والحل ضد الغى والخطل
 والبس لكل زمان لا يلايمه
 فى العسر واليسر من حل ومرتحل
 واممت ففى الصمت اسرار تضمنها
 ما نالها قط الا سيد الرسل
 واستشعر العلم فى كل الامور ولا
 تبادر ببادة الا الى رجل
 وان بليت بشخص لا خلاق له
 فمن كانك لم تسمع ولم يقل
 ولا تمار سفيها فى محاوراة
 ولا حليما لكي تنجوا من الزلل
 ثم المزاج فدعه ما استطعت ولا
 تكن عبوسا ودار النفس عن كل
 ولا يفرك من تبدو بشاشته
 منه اليك فان السقم فى العسل

2. Translate into Arabic:—

The miller's daughter was both avaricious and wicked. She was not satisfied with preventing my brother from receiving what was due to him, but she excited her father to punish the tailor for the love he professed for her. The means which they took were the following : The miller invited Bacbouc one evening to supper, and after having treated him with but indifferent fare, he thus addressed him : ' It is too late, brother, for you to return home ; you had much better, therefore, sleep here.' So he showed him to a bed, and left him to sleep. In the middle of the night the miller came to my brother and called out to him, ' Are you asleep, neighbour ? My mule is taken suddenly ill, and I have a great deal of corn to grind : you will therefore do me a very great favour if you will turn the mill in his place.' To prove to him that he was a man willing to oblige him, my brother answered that he was ready to render him this service if he would only show him how he was to set about it. The miller then fastened

him by the middle of his body like a mule, to make him turn the mill; and immediately giving him a good cut upon the loins with the whip, 'Get on, neighbour,' he cried. 'Why do you strike me?' answered my brother. 'It is only to encourage you,' replied the miller; 'for without that my mule will not stir a step.' Bacbouc was astonished at this treatment; nevertheless, he durst not complain of it. When he had gone five or six rounds he wished to rest himself; but the miller immediately gave him a dozen sharp cuts with the whip, calling out, 'Courage, neighbour; don't stop, I entreat you; you must go on without taking breath, otherwise you will spoil my flour.'

PERSIAN.

FIRST HONOURS PAPER.

Examiner—MAULAVI MD. ABU TAHIR.

Paper-setters—
(*Pass and Honours*). { SHAMS-UL-ULMA KAMALUDDIN AHMAD, M.A.
SHAMS-UL-ULMA SHAIKH MAHUMD GILANI.
KHAN BAHADUR MAULAVI MD. IBRAHIM, B.A.
MAULAVI MUHAMMAD IRFAN, M.A.
Z. R. Z. SUHRAWARDY, ESQ., M.A., B.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English either A or B:—

A.

اگر دم زند شهریار اندرین
نه راند سپاه و نسازد کمین
از ایوان همه فرهی رفته گیر
عجبان از سر تیغش آشفته گیر
ز ما مایه گیرد که خود زور هست
نگیرد کسی دست او را بدست
عنان دار چون او ندیدست کس
تو گوئی که سام سوارست و بس

نداریم طاقت درین جنگ اوی
 بدین گرز و چنگال و آهنگ اوی
 سر بخت گردان فرو خفته گیر
 بزرگیش بر آسمان رفته گیر
 بنه اینک امشب همه بر نهیم
 همه روی را سوی کشور نهیم
 اگر خود شکیبیم یک چند نیز
 نکوشیم و دیگر نکوئیم چیز

B.

دگر گفت کافراسیاب این سخن
 نباید که داند ز سر تا به بن
 که او دشمن نامور رستمست
 بتوران زمین زو همه ماتمست
 مبادا که گردد بتو کینه خواه
 ز خشم پدر پور سازد تباه
 چنین گفت سهراب کاندلر جهان
 ندارد کسی این سخن را نهان
 نبرده نژادی که چوئین بود
 نهان کردن از من چه آئین بو
 نهانی چرا داشتی از من این
 نژادی بآئین و با آفرین
 بزرگان جنگ آرز از باستان
 ز رستم زنفند این زمان داستان

کنون من ز ترکان جنگ آوران
فراز آورم لشکری بیکران

2. (a) Pick out three Arabic words from the above extracts and give the Persian equivalents of the same, and *vice versa*. 6

(b) Comment upon the forms of the following and give their meanings :— 4

آئین - افراسیاب - نبرده - مبادا

3. Translate into English, adding notes where necessary :— 9

صوفی بیا که آئینه صاف است جام را
تا بنگری صفای منی لعل فام را
راز درون پرده زردان مست پرس
کیں حال نیست صوفی عالی مقام را
عقبا شکار کس نشود دام باز چین
گانجها همیشه باد بدست است دام را
من آن زمان طمع ببردیم ز عاقبت
کلین دل نهاد در کف عشقت زمام را
مارا بر آستان تو بس حق خدمت ست
ای خواجه باز ببین بدرحم غلام را
در عیش نقد کوش که چون آبخور نماند
آدم بهشت روضه دار السلام را
در بزم دور یک دو قدح در کش و برو
یعنی طمع مدار وصال دوام را
ای دل شباب رفت و نچیدی گلی ز عمر
پیرانه سر بکن هوس ننگ و نام را
حافظ مرید جام خم ست ای صبا برو
وز بنده بندگی برسان شیخ جام را

5. جام - می لعل فام - شیخ جام (a) To whom and to what does جام and می لعل فام refer ? 5

To what place does the poet allude by the words گنج in line 3 ? 1

- (b) Explain the idea underlying in 3

در عیش نقد گوش که چون آبخور نماند

آدم بهشت روضه دار السلام را

- (c) What change of meaning would take place if ممکن be substituted for بکن in

پیرانه سر بکن هوس ننگ و نام را

5. Paraphrase in Persian any three of the following extracts, and explain the idea underlying the same, mentioning the allusions, if any, contained therein. 15

A.

گفت شیطان که بما اغویتنی

کرد فعل خود نهان دیو دنی

گفت آدم که ظلمنا نفسنا

او ز فعل حق نه بد غافل چو ما

B.

سیل چون آمد بدریا بحر گشت

دانه چون آمد بمزرع گشت گشت

چون تعلق یافت نان با بوالبشر

نان مرده زنده گشت و با خبر

C.

جسم خاک از عشق بر افلاک شد

کوه در رقص آمد و چالاک شد

عشق جان طور آمد عاشقا

طور مست و خر موسی معقا

D.

شیر پشمین از برای کد کند
 بو مسیلم را لقب احمد کنند
 بو مسیلم را لقب کذاب ماند
 مر محمد را اولوالالباب ماند

6. Translate into English, explaining all the metaphors contained therein : 20

چون مطرب آید در طرب یاری طلب یاقوت لب
 سیمین بری گاندر قصب ماه درخشان پرورد
 عقد ثریا در لبش سیماء در در غنغش
 و آن زلف هندو مشربش کفری که ایمان پرورد
 زلفش چو دیوی خیره سر روز دزد شب دیوانه تر
 کز ریو یک گردون قمر در زیر دامن پرورد
 گل پرورد در مشک چین گوهر فشاند ز انگبین
 بیضا نماید ز آستین مه در گریبان پرورد
 جوزا نماید از کمر پروین فشاند از شکر
 کژدم گذارد بر قمر گوهر بمـ جان پرورد
 پیدا لب و پنهان دهان این ترش تن آن توش جان
 بس جان و دل کز این و آن پیدا و پنهان پرورد
 رویش ز دیبا نرم تر روز فتنه بی آزم تر
 آبی ز آتش گرم تر کز شعله عطشان پرورد
 مشکین خطش بر گرد لب مو ویست جوشان بر طرب
 گرد نمکدان ای عجب یکدسته ریحان پرورد

دارد غم را بیشتر سازد دلم را ریش تر
 مانا هزاران نیشتر در نوک مژگان پرورد
 جز خط آن سیمین بدن کافزود حسنش را ثمن
 هرگز شنیدی اهرمن مهر سلیمان پرورد

7. Expand in your Persian the idea conveyed in the following lines 12
 of Hafiz:—

آسایش دو گیتی تفسیر این دو حرف است
 با دوستان تلافی با دشمنان مدارا
 هنگام تنگدستی در عیش کوش و مستی
 کاین کیمیای هستی قارون کند گدا را

8. Give the meaning of the following lines in simple Persian:— 15

کار پاکان را قیلس از خود مگیر
 گرچه باشد در نوشتن شیر شیر
 جمله عالم زین سبب گمراه شد
 کم کسی ز ابدال حق آگاه شد
 همسری با انبیا برداشتند
 اولیا را همچو خود پنداشتند
 گفته اندک ما بشر ایشان بشر
 ما و ایشان بسه حوایم و حور
 این ندانستند ایشان را عمی
 هست فرقی در میان بی منتها
 هر دو گون زنبور خوردند از محل
 یک شد زان نیش و زان دیگر عسل

هر دو گون آهو گيا خوردند و آب
 زين يکى سرگين شد و زن مشک ناب
 هر دو نى خوردند از يک آبخور
 آن يکى خالي و آن پر از شکر
 مد هزاران اينچنينى اشباه بين
 فرق شان هفتان ساله راه بين
 اين خورد گردد پليدي زو جدا
 و آن خورد گردد همه نور خدا

PERSIAN.

SECOND HONOURS PAPER.

Examiner—MAULAVI MD. IRFAN, M.A.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

1. Translate into English or Persian:—

10

مرج البحرین يلتقيان - بينهما برزخ لا يبغيان - فبليّ آلاء
 ربكما تكذبان - يخرج منهما اللؤلؤ والمرجان - فبليّ آلاء
 ربكما تكذبان - وله الجوار المنشئت فى البحر كالأعلام - فبليّ
 آلاء ربكما تكذبان - كل من عليها فان و يقضى وجه ربك
 فى الجلال والاكرام - فبليّ آلاء ربكما تكذبان - يسئله من
 فى السموات و الارض كل يوم هو فى شأن - فبليّ آلاء ربكما
 تكذبان *

2. (a) Point out the تعليل in منشآت يبقى- فان - and state 4
their ميفه and باب

(b) What comments have been made regarding the words بحرین , 8
لؤلؤ and مرجان mentioned in the above extract ? Answer this in
Persian.

(c) What does شأن signify ? Explain this fully. 3

(d) Parse the following sentences according to the Arabic Gram- 3
mar :—

من عليا - كل يوم هو في شأن

3. Give, in Persian or Arabic, the summary of 565th and 566th 12
nights in the story of Sindbad Bahri.

4. Translate into English or Persian :— 10

ما قد تركت فما خلفته كرما
بل بالقضاء وحكم فى الورى جاري
فطا لما كنت مسرورا و مغتبطا
احمى حمى كمثل الضيغم الضاري
لا استقر ولا استخي بخودلة
شحا عليه ولو القيت فى النار
حتى وميت باقدار مقدرة
من الاله العظيم الخالق الباري
ان كان موتى محتوما على عجل
فلم اطق دفعه عني باكتاري
ولا جنودي التي جمعتها نفعت
ولم يغثنى صديق لي ولا جاري

5. Translate into English any one of the following extracts :— 12

A.

سبحان الله نميدانم نعره كرناى تمثيل يوم ينفخ فى الصور
بود كه مردگان گور بخود فرو رفتگي را زنده ميساخت با طنطنه

کوس تاویل یسبح الرعد بحمده که خفتگان بستر از کار افتادگی
را بیدار میکرد العظمة لله عجب شکوهی و طرفه انبوهی بر
در دولت سرا اتفاق افتاد از هر طرف زرین قبائی همچو برق
از جا بسته بر قلعلیان می خندید که بخطف ابصار هم و از
هر سو نمد پوشی مانند ابر به بر داشتن گنج و گوهر بخزائن
قلعه میدوید که یکملون اوزار هم - بهر حال منشاء انبعاث این
فرحت و سرور - و مبدا اهتزاز گل مختال فخور این بود که
بلا تشبیه حاجی محراب تا پیش طاق دولت خانه چون
ساعیان صفا و مروءه دویده آمد که محرمان کعبه مقصود
کمندها چون حبل المتین رشته اعتقاد استوار ساخته در رنگ
زائران که بر کوه عرفات روند بر فرط برج بر آمدند *

B.

همدین روز حکم شد که دو صد جامه و مغفر چرمی
بدرفش امر نافذ ساروا الی مغفره من ربکم و بشفره نص
قاطع خلق الانسان من عجل بدوزند تا غایبان شجاعت
شعار و مجاهدان شهامت دثار را خلعت بدلفاهم جلود غیر
جلودهم پوشانیده بیورش مامور فرمائیم که در مسلح قتل
پوست از تن بیمغزی چند بر آرند و کسوت حصول مامول
را بعبیان ساختن آن تبلیس کیشان از لباس وجود زود در بر
کشند محصلان غلاظ بر گاؤ کشان موکد که فاعلو ما تؤمرون
و موکدان شداد بر چرم دوزان محصل که فذبکوها و ما کادوا
یفعلون منتظران نجات از تیه بنی اسرائیل بامید صدق این

وعده (که موسی آرزو در لوح خاطر خوانده) از شادی در پیوست نمی گنجند و خرد سالن اردو از تخیل فعل این فوت (که سامری خیال در قالب تصور ریخته) بمصدق عجله جسدا له خوار از خوشحالی فریاد میکنند *

6. (a) Write notes on—

6

ساعیان - عرفات - صفا - مروءة - سامری - تیه بنی اسرائیل

(b) Parse and comment upon the following:—

4

خفتگان بستر از کار افتادگی

مردگان گور بخود فرو رنگی

(c) To whom does نمد پوش and زرین قبا refer ?

2

7. Translate into English either A or B:—

12

A.

اصفیای تجرد و اولیای تعلق نظر بر آسایش جهانیان (که وابسته بیک حکمی و بیک حاکمی و یک راهی و یکجتهی و یک اندیشی ست) انداخته ظهور این معنی را در چنین وقت از تأییدات اقبال دانستند و معامله ناهمان (که هجوم افغانان سیه بخت ممالک شرقی را دست آویز خود ساخته از یورش گجرات مانع آمدی) از سnoch این سانحه در گو ناکامی فرد شدند و طبقه (که رفتن گجرات و تسخیر آن ملک در تنگنای حوصله آنها نمی گنجید و بانسون و افسانه حرف سرا گشتی) این سانحه را وسیله ژاو خائنی خود ساخته ترغیب نهضت دیار شرق معروض داشتند خدیو خدا پرست را چون نظر بر ان افتاده بود (که ستم رسید های گجرات را در مهد عافیت در آرند) گوش بر ترهات مردم

نمی انداختند و بر زبان اقدس گشت خوب شد که خبر در گذشتن سلیمان در راه گجرات رسید اگر در دار الخلافه رسیدی هر آینه مراعات احوال بیشتری از ملازمان درگاه فرموده یورش ممالک شرقیه پیشنهاد همت والا میساختیم *

B.

آگاه دلال دیده‌ور و دور بینان ژرف نگاه را چرا گویم ظاهر پرستان معامله فهم نیکو می‌شناسند که هرگاه مفتشان این دولت ابد قرین را بمحض انتساب چه گشایشها که گشایند مشکلات در پیش همت طلبگار ایشان نمی‌آرد (خصوصاً بان ارتباط عقیدتمندی پیرایه سعادتمندان شود) خاصه آن گروه بختمند (که بمراتب اخلاص این خدیو آفاق سر بلند باشند) چگونه در مطالب والا و مقاصد بزرگ کامروا می‌گردند پس در هرکاری (که این بزرگ ساخته الهی بنفس نفیس همت بندد) هر آینه حصول آن مقاصد بی نقاب توقف جلو ظهور دهد و روزی چند (که صورت تاخیر و تسویف راه می‌یابد) همانا حکمت بالغه ایزدی چنان اقتضا میکند که کتله مدارج اخلاص مخلصان و مراتب خدمتگذاری هر کدام بر پیشطاق عیان نگارش یابد و زنگ زدائی جواهر استعدادات شده سبب تربیت خدیو جهان مردم را بر عالمیان پدید آید و مسهلی زر اندود در بوتۀ گذارش در آید نقد سلطنت خالص گردد و عیار آن افزون قدر شود *

8. Relate in your own Persian the story of Bahramgur when he visited the tent of a shepherd and was astonished to see a dog hanging from the gallows near it. 14

PERSIAN.

THIRD HONOURS PAPER.

Examiner—KHAN BAHADUR MAULAVI MD. IBRAHIM, B.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English :—

30

A.

خلاصه در این وقت چهار ساعت از نصف شب گذشته بود در این بلادیکه تحت خط استوا واقعدن تقریباً شش ساعت بعد از نصف شب آفتاب طالع میشود بنابر این حجاب ظلمت شب زیاده از دو ساعت دیگر نمیتوانست میان ما بیچارگان سیه روز و اشرار هندی حاجز و حایل باشد و نمیدانم در این دو ساعت وقت تا پرده از روی کار ما بر نیفتاده آیا پناه و مأمنی برای ما دست خواهد داد یا نه من محنت دیده اگر بدتر ازین شب شبی نمیدیدم هرآینه میگفتم در عالم هیچ بشری شبی بدین شومی و شری صبح نکرده است امان افسوس که در راه رنج و محنت این اول منزل من بود هنوز از سواحل محیط بدبختی و غم بغمرات آن راه نیافته و از لیالی سختی و ایام سیاه بختی خبری ندارم مادر روزگار حوادث ناگوار برای من آبتن است که هنوز اثری از آن پدیدار نیست و کهنه پرویزن فلک چه بسیار خاک مذلت و خورای برای بیبختن بفرق من بیچاره در بر دارد که هنوز غباری از آن بر چهره حال من نه نشسته است *

B.

به رای عقدۀ کشای کاشفان حقایق اسرار و واقفان رموز
 سعادت و اخبار که مدرسان دارالعلم اقلیم نیکو کاری و ابرازند
 مخفی و مستور نخواهد بود که جواهر سرمه که رمد خجالت
 و شرم ساری دنیا و عقبی از دیدۀ نظاره گیان گلزار زیست
 و سلوک بزدايد توتیای مال اندیشی خیر خواهی ایام
 و ترک عیب جوئی و تقدیم قواعد لطف و مهربانی خاص
 و عام است چه برهریک از مفسرین صحف مسلمانی و عنوان
 طراز ان احکام ربّانی که دانایان علوم معاش و زندگانی اند
 واجب و لازم است که مرزعهٔ حال را از وجود خس و خاشاک
 سخنان بی فایده و افعال مذمومه حفظ و صیانت نماید
 تا از تربیت دهاقین حسن خلق و پاکیزه طینتی و رشحات
 سحاب نیکو کاری رتبه نشو و نما پذیرفته در هنگام رفع محصول
 که عبارت از عاقبت کار است از حاصل کشت زار سعادت
 خرمن فیض نیکو نامی و درجات در حصار مدعا ذخیره
 نمایند *

2. Translate clearly into English :—

20

ای بزبان نکته گزار آمده
 وی بسخن نادره کار آمده
 نقطهٔ نطق است ترا بر زبان
 گشته از آن نقطه زبانت زبان
 گر کنی آن نقطه ازین حرف حک
 بر خط حکم تو نهد سر فلک

هر که درین گنبد نیلوفر
 افکند آواز؛ نیکو فری
 نیکوئی فری از خامشیت
 خامشیش تیغ جهالت گشیت
 گفتن بسیار نه از مغزی است
 ولولۀ طبل ز بی مغزی است
 خمّ پر از بادۀ تهی از صداست
 چون که تهی شد ز صدا پر نواست
 در دلت از غیب گلی چون کشاد
 از دم نا خوش مدۀ آنرا بیاد
 تا نه لبّ بسته ز دعوی شود
 کی دل تو مخزن معنی شود
 غنچه که نبود بدھانش زبان
 لعل و زرش بین گره اندر میان

3. Translate into Persian:—

Shah Jamshid also enlisted the subject Deevs into the service of making bricks, of which the invention is attributed to him. He is likewise credited with the employment of hewn marble in the construction of buildings, with the discovery of perfumes, the arts of healing, the invention of ships, and many other useful means for benefiting the race. It was Jamshid also who instituted the Now Ruz, or New Year, at the time of the spring solstice, a festival still celebrated in Persia with many ceremonies during ten days. He seems indeed to have been a most puissant, beneficent, and glorious king for many peaceful years, until, as the legend records, his head was affected by the height of power which he had reached; then he became arrogant and recognized no other greater than himself, and forgetting his Creator, assumed himself to be the sole architect of his greatness. The priests and people trembled when they heard his high utterances, for they foresaw that it meant his downfall. They realized what a later king wisely said: "Pride goeth before destruction."

PERSIAN.

FOURTH HONOURS PAPER.

Examiner—MAULAVI MD. ABU TAHIR.*Candidates are required to give their answers in their own words as far as practicable.**The figures in the margin indicate full marks.*

1. Translate into English :—

10

باصل خویش یک ده نیک بفر
 که مادر را پدر شد باز مادر
 جهان را سر بسر در خویش می بین
 هر آنچه آید باخر پیش می بین
 در آخر گشت پیدا نفس آدم
 طفیل ذات او شد هر دو عالم
 نه آخر علت غائی در آخر
 همی گردد بذات خویش ظاهر
 ظلمومی و جهولی ضد نورند
 و لیکن مظهر عین ظهورند
 چو پشت آئینه باشد مکرر
 نماید روی شخص از روی دیگر
 شعاع آفتاب از چارم افلاک
 نکرد منعکس جز بر سر خاک
 تو بودی عکس معبود ملانک
 از آن گشتی تو مسجود ملانک

بود از هر تنی پیش تو جانی
 وزو در بسته با تو ریسمانی
 از آن گشتند امرت را مستقر
 که جان هر یکی در تست مضمّر

2. (a) Give the sum and substance of the above extract in your own Persian. 5

(b) Explain the term علت غائی. Name the other causes (علل) 4
 of which the above is the final.

(c) State the allusion contained in the line— 3

از ان گشتی تو مسجود ملائک

3. Annotate in Persian any two of the following extracts:— 16

A.

هر آنکس را که ایزد راه نهد
 ز استعمال حنطق هیچ نکشود
 حکیم فلسفی چون هست حیران
 نمی بیند ز اشیا غیر امکان
 ز امکان میکند اثبات واجب
 از ان حیران شد اندر ذات واجب
 گهی از دور دارد سیر معکوس
 گهی اندر تسلسل گشته معبوس

B.

برو اندر پیی خواجه باسری
 تفرج کن همه آیات کبری
 برون آی از سرای امهانی
 بگو مطلق حدیث من رآنی

گذاري کن ز کاف کنج کونیس
 نشین در قاف قرب قاب قوسیس
 دهد حق مر ترا هر آنچه خواهی
 نمایندت همه اشیا کماهی

C.

چو هستی مطلق آمد در اشارت
 بلفظ من کفند از وی عبارت
 حقیقت کز تعین شد معین
 تو او را در عبارت گفته من
 من و تو عارض ذات وجودیم
 مشکاتی مشکات وجودیم
 همه یک نور دان اشباح ارواح
 که از آئینه پیدا گه ز مصباح

4. (a) Derive and give the root meaning of—

3

مشکات - مصباح - عبارت - مطلق - تفرج - امکان

- (b) Explain in Persian the technical terms—

4

امکان - واجب - تسلسل and دور

5. Translate into English:—

8

نثار اشک من هر شب شکر ریزست پنهانی
 که همت را زناشوئیست با زانو و پیشانی
 چو هم زانو شوم باغم گریبان را کنم دامن
 سرم را بر سر زانو کند دامن گریبانی
 سرم زان جفت زانو شد که از تن حلقه میسازم
 در آن حلقه ترازو دار بیاعان روحانی

دلم کعبه است و تن حلقه چگونه حلقه کانرا
 ز بس دندان کش بینی دهان زمزمش خوانی
 سر احرامیان عشق بر زانو به است ایرا
 صفا و مروه مردان سر زانوست گردانی
 تو زین احرام و زان کعبه چه دیدی کز برون چشمت
 ز کعبه پوششی دیدست و از احرام عریانی
 شدست آئینه زانو بنفش از شانه دستم
 که دارم چون بنفشه سر بزانو از پیشمائی
 ملغم کردار خون آلوده از باران اشک آری
 ملغم سر بر سر زانوست خون آلوده بارانی

(b) Point out and explain clearly all the rhetorical figures in the above extract, giving their technical names. 8

6. Give the substance, in your own Persian, of the reply given in Gulshan-i-Raz to the question:— 9

که شد بر سر وحدت واقف آخر
 شناسای چه آمد عارف آخر

7. Explain one of the following:—

10

A.

چه بود آن نفخ روح و غسل و روزه
 که مریم عور بود و روح تنها
 هنوز آن مهر بر درج رحم داشت
 که جان افروز گوهر گشت پیدا
 چه بود آن نطق عیسی وقت میلاد
 چه بود آن صوم مریم وقت اصفا
 چگونه گفت عیسی بر سر دار
 که آهنگ پدر دارم بیالا

وگر قیصر سگالد راز زردشت
 کنم زنده رسوم زند و استا
 چگونه ساخت از گل مرغ عیسی
 چگونه کرد شخص عاذر احیا
 بگویم کانه چه زند است و چه آتش
 کز پنازند و زند آمد مسمما
 چه اخگر ماند از ان آتش که وقتی
 خلیل الله درو افتاد دردا
 بقسطاسی بسنجم راز موبد
 که جو سنگش بود قسطای اوق
 چرا پیچید مگس دستار و فوطه
 چرا دارد ملخ را نین دیبا

B.

درین ره اولیا باز از پس و پیش
 نشانی میدهند از منزل خویش
 بعد خویش چون گشتند واقف
 سخن گفتند از معروف و عارف
 یکی از بحر وحدت گفت انا الحق
 یکی از قرب و بعد و سیر زورق
 یکی را علم ظاهر بوده حاصل
 نشانی داده از خشکی ساحل
 یکی گوهر بر آورد و هدف شد
 یکی بگذاشت آن نزد صدف شد

یکی در جزو و کل گفت این سخن باز
 یکی کرد از قدیم و محدث آغاز
 یکی از زلف و خال و خط بیان کرد
 شراب و شمع و شاهد را عیان کرد
 یکی از هستی خود گفت و پندار
 یکی مستغرق بت گشت و زدار
 سخنها چون بوفق منزل افتاد
 در افهام خلائق مشکل افتاد
 کسی کو اندرین معنیست حیران
 ضرورت میشود دانستن آن

3. Translate into Persian :--

No region derived such advantages from this triumph of the Moslem arms and faith as the country called Maṣar-ul-Nahar, being that extensive tract of Independent Tartary which is watered by the great rivers Oxus and Jaxartes. Though blessed with a fertile soil, and one of the finest climates of Asia, it is represented in all the ancient records as entirely Scythian, covered with roaming hordes of shepherds and warriors, who lived in tents, and subsisted on the milk of their flocks. Under the Arab sway, it acquired and has ever since retained regular government, improved cultivation, large and populous cities; and yet this province was one of the first which were severed from the Caliphate.

PERSIAN.

FIFTH HONOURS PAPER.

Examiner—KHAN BAHADUR MAULAVI HIDAYAT HOSSAIN.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English or Persian any two of the following extracts :— 10

A.

قل هو الذي انشاكم وجعل لكم السمع و الافئدة قليلا
 ما تشكرون - قل هو الذي ذراكم في الارض و اليه تحشرون -

و يقولون متى هذا الوعد ان كنتم صادقين - قل انما العلم عند الله و انما انا نذير مبين *

B.

و المرسلت عرفا فالعصفت عصفا - و النشرت نشرا -
فالفرقت فرقا - فالملقيت ذكرا - عذرا او نذرا - انما توعدون
لواقع - فاذا النجوم طمست - و اذا السماء فرجت و اذا
الجبال نسفت - و اذا ترسل اقتت لاي يوم اجلت *

C.

قال زعيم الانس نعم ايها الملك ان هذه البهائم والانعام
و السباع و الوحوش و الحيوانات اجمع عبيدنا و نحن اربابها
وهي خول لنا و نحن موالينا فمنها هارب عاص و منها مطيع
كارة منكر للعبودية فقال الملك للانسي ما الدليل و ما الحجة
على ما زعمت و ادعيت *

2. (a) What does ل in لكم and ما in ما signify ? 3

(b) Account for the اعراب of— 4

اعذرا - ذكرا - قليلا and نذر

(c) Why is the word اليه put before نذرون ? Point out the جزا 2
ان كنتم of

(d) Give the singular or plural, as the case may be, of any five of 5
the following:—

انعام - بهائم - سباع - موالى - سمع - حجة - خول

3. Write in Arabic or Persian the actions of the pious in this world 6
and their rewards in the next, as mentioned in سورة دهر

4. (a) Translate into English:— 8

بحسب قواعد حكمت نیز اخلاق تابع مزاجست و مزاج
قابل تبديل نيست و اگر كسى منع امتناع تبديل مزاج كند

بنا بر اختلاف مزاج شخصی واحد در هر سن بلکه در هر سال
گوئیم هر شخصی را عرض المزاجی ست متوسط میان حدی
معین از تغریط و حدی معین از افراط در هر کیفیتی از کیفیات
اربعة و تواند بود که خلقی در همه مراتب عرض المزاج لازم
باشد و زوال آن مستلزم زوال مزاج شخصی آن شخص باشد که
بقای او بدون آن محالست و حیثیّت سعی در ازاله آن
خلق عبث باشد *

(b) Explain clearly :—

4

کیفیات اربعة - تغریط - افراط - عرض المزاج

5. Explain in Persian *any two* with reference to the context :—

10

A.

آدمی زاده طریقه معجون نیست
از فرشته سرشته وز حیوان
گر کند میل این شود کم ازین
وز کند قصد آن شود به ازان

B.

دورست سر آب درین بادیه هشدار
تا غول بیابان نفریبد بسرابت
خلیلی قطاع الفیانی الی الحمی
کثیر و ارباب الوصول قلائل

C.

جوهر جام جم از طیفنت کان دگراست
تو توقع ز گل کوزه گران میداری

6. Translate into English:—

10

الحق این سجیه رضیه که در حقیقت ملاقات روحانی
و مکالمهٔ زبانی ست مسرت افزای دل مشتاق و طرب پداری
ضمیر صافی همان تواند بود و مجالست صوری و مصاحبت
ظاهری را بدل عذیم البدل توان شمرد و آنکه رقم پذیر خامه
مواخات شمامه گردیده بود که در توکید مبانی صلح و تصفیة
مناهل وفاق از جانبین اهتمام رود و همدرد کوه فیما بین باشد
بر منظر استحسان جلوه نموده پیداست که امری شریف تر
در عالم کون و فساد و نشاء تعلق غیر از تودد و توافق نشان
نداده اند که انتظام سلسله کائنات بآن منوط و مربوط ست
و هرگاه این معنی در طبقهٔ سلاطین (که اساطین بارگاه جبروت
اند) بظهور آید هر آئینه مثمر برکت و منتج حسنات حال و مآل
خواهد بود *

7 (a) Give the signification of the final ي in—

4

روحانی - صافی - صوری - زبانی - ظاهری - امری -
مبانی - معنی *

(b) Give the singular and plural, as the case may be, of —

4

کون - مناهل - صر - ضمیر - نشاء - سلسله - اساطین - مآل

8. Translate into Arabic:—

30

- (a) I enjoy good health since I came here.
- (b) Every thing in this world is imperfect.
- (c) It will take you two hours to cross the river.
- (d) Please convey my respects to the Governor.
- (e) I have not seen him since two months.
- (f) Without perseverance you will never achieve anything.

PERSIAN.

SIXTH HONOURS PAPER.

Examiner—KHAN BAHADUR MAULAVI MD. IBRAHIM. B.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

MUSLIM HISTORY.

Answer any three questions:—

1. Give a brief account of the battle of Badr. What were its effects on Islam? 10
2. Give an account of the conquest of Baghdad, and of the fall of the 'Abbasides. 10
3. Sketch briefly the reign of Aurangzib. 10
4. Who was Nadir Shah? What was the state of Persia during his rise? Give a short account of his reign and conquests. 10

HISTORY OF PERSIAN LITERATURE.

Answer any four questions:—

5. Mention a few of the earliest historical works written in the Persian language, giving their approximate date of composition. 10
6. Write a critical essay on *only one* of the following:— 10
(1) Jāmī; (2) Khāqānī; (3) Nizāmī; (4) Mawlānā Rūmī.
7. Whom do you consider the best Qasida writer amongst the Persian poets? State your reasons for the selection. Write full account of his life and give a critical estimate of his writings. 10
8. Write short notes on Gulistān, Sikandar Nāma, Tayyibāt and Gulshan-i Rāz. 10
9. Give a short account of the most famous writers during the Ghaznavi period. 10

RHETORIC AND PROSODY.

10. Explain with examples any three of the following figures:— 6

توریہ - مشاکلہ - استخدام - حسن تعلیل - ایہام تناسب -

توشیحہ *

11. Name and explain the figures in:— 9

A.

ای طرہ و چہر تو یکی نار و یکی مار
بی نار تو در نارم و بیمار تو بیمار

B.

بهار آمد که از گلبن همی بانگ هزار آید
بهر ساعت خروش مرغزار از مرغزار آید

C.

صوفي بيا که آينه صاف است جام را
تا بنگري صفای می لعل فام را

12. Scan the following *bait* and name its *بحر* and *زحاف* if any:— 4

(a) ما هم این هفته شد از شهر و بچشم سالیست

حال هجران تو چه دانی که چه مشکل حالیت

(b) Name some of the most popular metres generally employed by the Persian poets, and give their measures. 6

(c) Describe the Ruba'i metre, showing what variations are permissible. 5

PERSIAN.

FIRST PASS PAPER.

Examiner—MAULAVI MD. IRFAN. M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English, adding explanatory notes where necessary:— 10

ای فروغ ماه حسن از روی بخشان شما
آبروی خوبی از چاه زنخندان شما
عزم دیدار تو دارد جان بر لب آمده
باز گردد یا بر آید چیست فرمان شما
کی دهد دست این غرض یارب که همدستان شوند
خاطر مجموع ما زلف پریشان شما

کس بدور نرگست طرفی نبست از عافیت
 به که بفروشد مستوری بمستان شما
 بخت خواب آلود ما بیدار خواهد شد مگر
 زانکه زد بردیده آب از روی رخشان شما
 با صبا همراه بفرست از رخت گلدسته
 بو که بوئی بشنویم از خاک بستان شما
 دل خرابی میکند دلدار را آگه کنید
 زینهار ای دوستان جان من و جان شما
 عمرتان بادا دراز ای ساقیان بزم جم
 گرچه جام ما نشد پر می بدوران شما
 ای صبا با ساکنان شهر یزد از ما بگو
 کای سر ناحق شناسان گوی میدان شما
 گرچه دوریم از بساط قرب همت دور نیست
 بنده شاه شمائیم و ثنا خوان شما

2. (a) To what well-known fact does the 9th *bait* (بیت) in the above extract allude to? Write it out in Persian.

(b) State the significations of (ن) in the following:—

رخشان - همدستان - عمرتان - دوران

(c) Put the 3rd *bait* (بیت) in the above extract into prose order.

3. Translate into English *either* A or B:—

A.

کنون ای خودمند ارج خرد
 بدین جایکه گفتش اندر خورد
 بگو تا چه داری بیدار از خرد
 که گوش نیوشنده زو بر خورد

خرد بهتر از هرچه ایزد داد
 ستایش. خرد را به از راه داد
 خرد افسر شهریاران بود
 خرد زبور نامداران بود
 خرد زنده جاودانی شناس
 خرد مایه زندگانی شناس
 خرد رهنمای و خرد دل کشای
 خرد دست گیرد بهر دوسرای
 ازو شادمانی و زو مردمی ست
 ازویت فزونی و زویت کمی ست
 خرد تیره و مرد روشنی روان
 نباشد همی شادمان یکزمان

B.

بدو گفت شاه ستمگانی چه بود
 که یارست با تو نبود آزمود
 درین شهر ما نیکخواه تو ایم
 ستاده بفرومان و راه تو ایم
 تن و خواسته زیر فرمان تست
 سر ارجمندان و جان آن تست
 چو رستم بگفتار او بفگرید
 ز دل بد گمانیش کوتاه دید
 بدو گفت رخشم بدین مرغزار
 ز من دور شد بی لگام و فسار

کفون تا سمنگن نشان پی است
 از ان سو کجا جویبار رنی است
 ترا باشد از باز جوئی سپاس
 بیای پی تو پاداش نیکی شناس
 در ایدون که رخشم نیاید پدید
 سران را بسی سر بخواهم برید

4. (a) Comment upon the forms and constructions of the following words:— 4

نیوشنده - زندگانی - ارجمندان - جویبار *

(b) Give the Arabic equivalents of any six of the following words:— 6

ارج - ستایش - داد - زیور - نبرد - خواسته - سپاس

پاداش - ایدون *

5. Relate into your own Persian the cause that contributed to the birth of Suhrab as described by Firdawsī in his Shah Nama. 15

6. Translate into English:— 8

دام بردست شوخی شاهدی شنگی که همچون او
 نه ماهی از ختن خیزد نه ترکی از حصار آید
 چو باد آنزلف تاریکش برخسارش بشوراند
 پی تاراج چین گوئی سپاه زنگبار آید
 دمی گر هم کشاید حلقه‌های زلف پرچینش
 بمغزم کاروان در کاروان مشک تار آید
 بجان او که هر گه کاکل و گیسوی او بینم
 جهان گوئی بچشم من پر از افعی و مار آید
 نگاهم چون همی افتد بروی او ز موی او
 بچشمم عالم هستی پر از دود و شرار آید

ز خال و خط و زلف و مژه و ابرو و کیس و پیش
 جهان تاریک در چشم چو یکمشت غبار آید
 لب قآنی از وصف لبش بنگاله را مازد
 کز و هردم نبات و قند و شکر بار بار آید
 الا یا سر سیمینا بده آن باده مینا
 که بینی از که سینا تجلی آشکار آید

7. (a) Explain the point of relation between *ملا* and *ترکی* ; *ختن* and *حصار* in the first line of the above extract. 2

(b) Indicate the difference, if any, between *گیسو* and *ماکل* and *مار* . 2

(c) What idea does the word *بنگاله* convey in the above extract ? 2

(d) Explain, in Persian, the allusion contained in the last *baît* 3

(بیت) .

8. Explain, in Persian, one of the following extracts with reference to the context:— 10

A.

طوطی اندر گفت آمد در زمان
 بانگ بر روی زد بگفتش در عیان
 کز چه ای کل با کلان آمیختی
 تو مگر از شیشه روغن ریختی
 از قیاسش خنده آمد خلق را
 که چو خود پنداشت صاحب دلق را

B.

پسر را نباید که داند پدر
 زیوند جان و ز مهر و گهر
 فرستم گران لشکری نزد اوی
 بایران شود در زمان جنگجوی

چو روی اندر آرشد هر دو بروی
تهمن بود بی گمان چاره جوی

9. Paraphrase the following lines into simple Persian prose and state the idea underlying the same:—

چون محمد پاک شد از نار و دود
هر کجاء رو کرد وجه الله بود
چون رفیقہ وسوسہ بد خواہ را
کی بہ بینی ثم وجه الله را
هر کرا باشد ز سینہ فتح باب
او ز هر ذرہ بہ بیند آفتاب
حق پدیدست از میان دیگوان
همچو ماہ اندر میان اختران
دو سر انگشت بر دو چشم نہ
هیچ بیني از جهان انصاف نہ
ورنہ بیني این جهان معدوم نیست
عیب جز انگشت ففس شوم نیست
تو ز چشم انگشت را بردار هین
و آنکھانی هرچہ میخواستہی ببین
نوح را گفتند امت کو ثواب
گفت او زانسوی وَاسْتَغْشَوْا ثِيَابَ
رو و سر در جامہها پیچیدہ اند
لا جرم با دیدہ و نا دیدہ اند
آدمي دیدست باقی پوستست
دید آنست آنکہ دید دوستست

B.A. EXAMINATION.

PERSIAN.

SECOND PASS PAPER.

Examiner—KHAN BAHADUR MAULAVI MD. IBRAHIM, B.A

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Render the following into Persian :—

10

اقرأ باسم ربك الذي خلق - خلق الانسان من علق -
اقرأ وربك الاكرم - الذي علم بالقلم - علم الانسان ما لم يعلم -
كلا ان الانسان ليطغى - ان رآه استغنى - ان الى ربك
الرجعى - ارايت الذي ينهى - عبدا اذا صلى - ارايت
ان كان على الهدى - او امر بالتقوى - ارايت ان كذب
وتولى - الم يعلم بان الله يرى - كلا لئن لم ينته لنسفعا
بالنفاعية - ناعية كاذبة خاطئه - فليدع ناديه - سندع الزبانية -
كلا - لا تطعه واسجد واقترب *

2 (a) What tradition is there in connection with the revelation of the first five *āyat* in the above extract? Answer this in Persian. 5

(b) To whom does *ان الانسان ليطغى* in *ان الانسان ليطغى* refer? Explain the allusion contained in this verse. 5

(c) Parse, according to the rules of Arabic Grammar, the first two verses (آيت) in the above extract. 5

3. Translate into English :—

10

اعلموا يا جماعة اني لما رجعت من السفرة السادسة
وعدت لما كنت عليه فى الزمن الاول من البسط والانشراح
واللهو والطرب اقيمت على تلك الحالة مدة من الزمان
وانا متواصل الهناء والسرور ليلا ونهارا وقد حصل لى
مكاسب كثيرة وفوائد عظيمة فاشتاق نفسي الى الفرجة

فی البلاد و الی رکوب البحر و عشرة التجار و سماع الاخبار
فهمت بذلك الامر و حزمت أحمالا بحرية من الامتعة
الفاخرة و حملتها من مدينه بغداد الی مدينه البصرة فريت
مركبا محضرة للسفر و فيها جماعة من التجار العظام فنزلت
معهم و استأنست بهم و سرنا بسلامة و عافية قاصدين السفر و قد
طاب لنا الريح حتى و صلنا الی مدينه تسمى مدينه الصين *

4. (a) Explain the تعليل and give the صیغه and باب of any six of 12
the following:—

ليطغى - استغنى - ارأيت - سدد - اشتقت - قطعه -
همت - استأنست - اقامت *

(b) Give the singular or plural, as the case may be, of any six 3
of the following:—

انسان - عبد - ربيع - بضاعت - فرع - عاصف - مطر -
امتعه - عظام - مكاسب حصول *

5. Translate into English any two of the following extracts:— 13

A.

چون حقیقت حال بمسامع اقبال رسید برخلاف فهمهای
ناقص زمانیان و کنگشهای کوتاه حوصلهای روزگار بتسخیر گجرات
گرمتر گشتند و روز تیر سیزدهم آبان ماه الهی در جائی
(که امرای پیش بودند) نزول رایات اقبال شد و امرای
بزرگ و سایر ملازمان عقبه دولت لوازم استقبال بجای
آورده بسجده درگاه روشن پیشانی شدند و چون از مردم
سروهي چنین عذری بظهور آمده بود حکم معلی از مکم
سیاست و معدلت صادر شد که افواج گیتی کشای بسروهي
رفته سرکشان آن ناحیت را بر خاک هلاکت اندازند و خود

نیز بقاید اقبال عزیمت آنصوب فرمودند روز سروش هفدهم آبان ماه الهی حدود سروهی مخیم رایات فیروز مندی کشت *

B.

ایزد تعالی اندر هر عصری یکی را از میان خلق برگزیند و او را به هنرهای پادشاهانه ستوده و آراسته گرداند و مصالح جهان و آرام بندگان را بدو باز بندد و در فساد و آشوب و فتنه بدو بسته گرداند و هیبت و حشمت او در دلها و چشم خلایق بگستراند تا مردمان اندر عدل او روزگار می گذرانند و ایمن می باشند و بقای دولت او می خواهند و اگر از بندگان عصیانی و استخفانی بر شریعت یا تقصیر اندر طاعت و فوئمه‌های حق تعالی پدید آید و خواهد که بدیشان عقوبتی رساند و پاداش کردار ایشان را بچشاند (خدای عز و جل ما را چنین روزگار منما یابد و چنین مدبری دور دارد) هرآینه از شومی عصیان خشم و خذلان حق تعالی بدان مردمان در رسد *

C.

آن جهان پهلوان الهی (بجهت پرده آرائی خویش یا عیار گرفتن یا ملولگی از کامیابی نشاء ظاهر) شمشیر خاصه را دسته بدیواری سرکردند و طرف دیگر را نزدیک شکم اقدس داشته فرمودند که اگر راجپوتان در آن طور شجاعت خود را میفروشتند ما بهمین شمشیر حمله میکنیم غریب حالتی بر ایستادگان بزم مقدس رفت نه کسی را قدرت حرف زدن و نه رخصت دم بر آوردن درین هنگام مانسنگه بپای اخلاص

دویده سبکدستی نمود و چنان دست زد که آن شمشیر
جدا شده دور افتاد اندکی میان انگشت نروسبائه کشور
خدیو بریده شد حاضران بارگاه معلی شمشیر را دور بردند
و آنحضرت خشمگین شده مانسنگه را بر زمین زده مالش
میدادند *

6. (a) Write notes in Persian on روز سروش and آبان ماه - روز آبر and state briefly the origin of the era called سال الهی . 10

(b) Comment upon the tenses of the following verbs in extracts B and C : — 4

می گذرانند - می کنیم - میدادند and میخواهند

(c) Give the derivation and literal meaning of any six of the words :— 6

قاید - مسامع - استقبال - سیاست - معدلت - شریعت -
عقوبت - مصالح - فساد - استخفاف *

(d) Give the signification of the prefix ب in بتسخیر and بگذازند 5
بقاید - بدیشان - بمسجد

7. Give, in Persian, a brief account of the rebellion of یعقوب لیث 16
against the *Khalifa* احمد علی الله as given in your text.

PERSIAN.

THIRD PASS PAPER.

Examiner—KHAN BAHADUR MAULAVI HIDAYAT HOSSAIN.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate into English :—

A.

پس از ترس جان چاره جز استتار مایه و مال و اظهار اقلاس
و پریشانی حال نداشتیم فقط دلخوشی و مسرت ما در این

سردابه یعنی گرمابه از بابت دختر ما بود که بواسطه گرمی هوای سردابه و امداد حرارت غریزی و قوت طبع جوانی بحرانی کرده از عالم سکوت و بیهوشی و حالت خمود و خاموشی که بیم اختلاف و هلاکتش بود در آمده یکدفعه بنای گریه و زاری را گذاشته پیوسته اسم نامزد خود را بر زبان می آورد و زار زار میگریست شکر الهی را بجای آوردم که لله الحمد دخترم از خطر خفاق و هلاکت یا عارضه ماخولیا و جنون جسته است و از این بیعد من و شوهر و دخترم سه نفر خواهیم بود که باتفاق آراء و دلالت عقل همدیگر راهی تدبیر صواب برده چاره و حیلتي برای استخلاص و نجات و آسایش حیات خود ملن بتوانیم نمود و آنچه درباره این دخترک بگویم نه از راه علاقه و پیوند مادری و فرزندی و از وفور مهر و محبت قلبی است که میگویند "حب الشيء یعمی و یصم" بلکه از روی حق و انصاف و بدون اغراق و گزاف این دختر بسیار با هوش و ذکا و با دانش و دها بود در ابتلای به حوادث وسیع الصدر و با جرات در تدبیر منزل ماهر و با تجربیت و هرگاه دل شکسته نبودی پیوسته تدبیر درست از اوزایش نمودی چنانکه در این هنگام پس از آنکه از گریه و زاری قدری قرار و آرام گرفت با من و پدرش بنای مکالمه و مشاوره را گذاشت و در باب فرار و قرار رای زد و سخن راند و او را عقیده این بود که زودتر از این بیغول کدر و مضیق پر خطر بیرون رفت *

نقش سراپرده شاه‌یست حسن
 لمعه خورشید الهیست حسن
 حسن که در پرده آب و گلست
 تازه کن عهد قدیم دلست
 آنکه شد این سلسله بنیاد ازو
 لائحه حسن دهد یاد ازو
 ما که چنین گشته هر مهوشیم
 سوخته خرمن زهما آتشیم
 در دل هر سوخته جوشی که هست
 بر لب هر خسته خروشی که هست
 یک شرر از گرمی آن آتش است
 وقت کسی خوش که بآتش خوش است
 ای که چو شکل خورشید آراستند
 فتد ارباب نظر خواستند
 قد تو سرویست بهشتی چمن
 روی تو شمع‌یست سپهر انجمن
 صورت موزون تو نظم جمال
 مطلع آن جبهه فرخنده فال
 جبهه ات از نور چو مطلع نوشت
 ابرویت از مشک در مصرع نوشت
 سطره از ابروی تو خوشتر نمود
 لیک که آمد چو بمسطر نبود

تابد از آن مطلع مهر ارتفاع
بر مه رخسار تو هر دم شعاع

2. Translate into Persian:—

50

When only eighteen years of age, the young Ismail entered the province of Ghilan, on the shores of the Caspian, and by the sheer force of genius raised a small army, with which he captured Baku. His success brought recruits to his standard, and at the head of 16,000 men he defeated the chieftain of Alamut, the general sent against him, and, marching on Tabreez, seized it without a blow. In 1409 Ismail, the founder of the Safavean dynasty, was proclaimed Shah of Persia. Since that period, with the exception of the brief invasion of Mahmood the Afghan, Persia has been an independent and at times a very powerful nation. The establishment of the Safavean dynasty also brought about the existence of a Shah government, and gave great strength to that sect of the Mohammedans, between whom and other Islamites there was always great bitterness and much bloodshed. Ismail speedily carried his sway as far as the Tigris in the south-west and to Kharism and Candahar in the north and east. He lost one great battle with the Turks under Selim II at Tabreez, but with honour, as the Persians were outnumbered: but it is said he was so cast down by that event, he never was seen to smile again. He died in 1524, leaving the record of a glorious reign.

GREEK.

FIRST PASS PAPER.

Paper-setters— { W. C. WORDSWORTH. ESQ., M.A.
E. F. OATEN, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English the following passages:—

20

(a) Ἦν δ' ἀπαμειβόμενος προσέφη νεφεληγερέτα Ζεὺς·

“ τέκνον ἔμὸν, ποῖόν σε ἔπος φύγεν ἕρκος ὀδόντων.

πῶς ἂν ἔπειτ' Ὀδυσῆος ἐγὼ θεῖοιο λαθοίμην,

ὃς περὶ μὲν νόον ἐστὶ βροτῶν, περὶ δ' ἱρὰ θεοῖσιν

ἀθανάτοισιν ἔδωκε, τοὶ οὐρανὸν εὐρὺν ἔχουσιν ;

ἀλλὰ Ποσειδάων γαίηχος ἀσκελὲς αἰὲν

Κύκλωπος κεχόλwται, ὃν ὀφθαλμοῦ ἀλάωσεν,

ἀντίθεον Πολύφημον, οὗ κράτος ἐστὶ μέγιστον

πᾶσιν Κυκλώπεσσι· Οὔωσα δέ μιν τέκε νύμφη,

Φόρκυνος θυγάτηρ, ἄλδος ἀτρυγέτοιο μέδοντος,

ἐν σπέσσι γλαφυροῖσι Ποσειδάωνι μιγείσα.

ἐκ τοῦ δὴ Ὀδυσῆα Ποσειδάων ἐνοσίχθων
οὐ τι κατακτείνει, πλάζει δ' ἀπὸ πατρίδος αἴης.
ἀλλ' ἄγεθ', ἡμεῖς οἶδε περιφραζώμεθα πάντες
νόστον, ὅπως ἔλθῃσι. Ποσειδάων δὲ μεθήσει
ὄν χόλον· οὐ μὲν γάρ τι δυνήσεται ἀντία πάντων
ἀθανάτων ἀέκητι θεῶν ἐριδαινέμεν οἶος."

- (b) "Εὐθ' αὖτ' ἄλλ' ἐνόησε θεὰ γλαυκῶπις Ἀθήνη,
Τηλεμάχῳ δ' εἰκυῖα κατὰ πτόλιν ὄψετο πάντη,
καί ῥα ἐκάστω φωτὶ παρισταμένη φάτο μῦθον,
ἐσπερίους δ' ἐπὶ νῆα βοὴν ἀγέρεσθαι ἀνώγει.
ἦ δ' αὖτε Φρονόιοι Νόημονα φαίδιμον υἱὸν
ἦτε νῆα βοήν· ὁ δὲ οἱ πρόφρων ὑπέδεκτο.
Δύσετό τ' ἠέλιος σκυῖωντό τε πᾶσαι ἀγυαί·
καὶ τότε νῆα βοὴν ἄλαδ' εἶρυσσε, πάντα δ' ἐν αὐτῇ
ὄπλ' ἐτίθει, τά τε νῆες εὖσσελμοι φορέουσι.
στήσῃ δ' ἐπ' ἐσχατῇ λιμένος, περὶ δ' ἐσθλοὶ ἑταῖροι
ἄβροοι ἡγερέθοντο· θεὰ δ' ὤτρυνεν ἕκαστον.

2. (a) Translate the following passages, adding explanatory notes :— 12

- (i) Μνήσατο γὰρ κατὰ θυμὸν ἀμύμονος Αἰγίσθοιο,
τόν ῥ' Ἀγαμεμνονίδης τηλεκλυτὸς ἔκταν' Ὀρέστης.
(ii) Νῦν δέ μιν ἀκλειῶς ἄρπυιαι ἀνθρεΐψαντο.
(iii) Στῆσαμένη μέγαν ἰσθὸν ἐνὶ μεγάροισιν ὕφαινε,
λεπτὸν καὶ περίμετρον.
(iv) Βῆ ῥ' ἔμην ἐκ θαλάμοιο, θύρην δ' ἐπέρυσσε κορώνῃ
ἀργυρέῃ, ἐπὶ δὲ κληῖδ' ἐτάνυσσεν ἱμάντι.

(b) Explain and illustrate from the *Odyssey* the Homeric use of—
κεν, μιν, the noun-terminations -φειν and -οιο, and the local suffix -θεν

Scan the following lines, with comments on the metre :—

Ζηνὸς ἐνὶ μελάροισιν Ὀλυμπίου ἀβροοὶ ἦσαν.
εἰλαπίνη ἦε γάμος ; ἐπεὶ οὐκ ἔρανος τάδε γ' ἐστίν.

3. "The *Iliad*" says the great Bentley, "Homer made for men, 12
and the *Odyssey* for the other sex".

'It is', as Dean Alford says, 'of all poems a poem of the sea.'

Comment on these two statements about the *Odyssey* in the light
of your knowledge of the first two books.

Or,

Write a brief criticism of the following statement :—

Ἑπτὰ πόλεις διερίζουσιν περὶ ρίζαν Ὀμήρου,
Σμύρνα, Ῥόδος, Κολόφον, Σαλαμῖν, Ἴος, Ἄργος, Ἀθῆναι.

4. Translate the following passages :—

20

- (a) Οὐτ' ἂν κελεύσαιμ' οὐτ' ἄν, εἰ θέλοις ἔτι
πράσσειν, ἐμοῦ γ' ἂν ἡδέως δρώης μέτα.

ἀλλ' ἴσθ' ὅποιά σοι δοκεῖ, κείνον δ' ἐγὼ
θάψω. καλὸν μοι τοῦτο ποιούσῃ θανεῖν.
φίλῃ μετ' αὐτοῦ κείσομαι, φίλου μέτα,
ὅσια πανουργήσας· ἐπεὶ πλείων χρόνος
ὄν δεῖ μ' ἀρέσκειν τοῖς κάτω τῶν ἐνθάδε.
ἐκεῖ γὰρ αἰεὶ κείσομαι· σοὶ δ', εἰ δοκεῖ,
τὰ τῶν θεῶν ἔντιμ' ὀτιμάσας' ἔχε.

- (b) Κρ. Σὺ τοῦτο μούνη τῶνδε Καδμείων ὄρας.
Αν. ὀρώσι χοῦτοι, σοὶ δ' ὑπὶλλουσιν στόμα.
Κρ. σὺ δ' οὐκ ἐπαιδεῖ, τῶνδε χωρὶς εἰ φρονεῖς;
Αν. οὐδὲν γὰρ αἰσχρὸν τοὺς ὁμοσπλάγχχνους σέβειν.
Κρ. οὐκ οὐν ὁμαιμος χῶ καταντίον θανῶν;
Αν. ὁμαιμος ἐκ μιᾶς τε καὶ ταυτοῦ πατρός.
Κρ. πῶς δῆτ' ἐκείνῳ δυσσεβῇ τιμᾶς χάριν;
Αν. οὐ μαρτυρήσει ταῦθ' ὁ καθανὼν νέκυς.
Κρ. εἰ τοί σφε τιμᾶς ἐξ ἴσου τῷ δυσσεβεῖ.
Αν. οὐ γάρ τι δοῦλος, ἀλλ' ἀδελφὸς ὤλετο.
Κρ. πορθῶν δὲ τήνδε γῆν· ὁ δ' ἀντιστὰς ὕπερ.

- (c) Οἷμοι, γελῶμαι· τί με, πρὸς θεῶν πατρῶν,
οὐκ οἰχομένην ὑβρίζεις, ἀλλ' ἐπίφαντον;
ὦ πόλις, ὦ πολέως
πολυκτήμενες ἄνδρες·
ὦ Διρκαῖαι κρῆναι
Θήβας τ' εὐαρμάτου ἄλσος, ἔμπας
ξυμμάρτυρας ἔμμ' ἐπικτῶμαι,
οἷα φίλων ἄκλαυτος, οἷς νόμοις
πρὸς ἔργμα τυμβόχωστον ἔρχομαι τάφου ποταίνου·
ὦ δύστανος,
βροτοῖς οὔτε νεκροῖς κυροῦσα
μέτοικος, οὐ ζῶσιν, οὐ θανοῦσιν.

δ. Write grammatical notes upon the following passages, explaining any unusual or noticeable constructions:— 12

- (a) Εἷς γὰρ τις ἦν ἕκαστος οὐξειργασμένος,
κοῦδεῖς ἐναργής, ἀλλ' ἔφευγε μὴ εἰδέναι.
(b) Κρατεῖ δὲ μηχαναῖς ἀγραύλου
θηρὸς ὀρεσσιβάτα, λασιανύχενά θ'
ἵππον ὀπλίζεται ἀμφίλοφον ζυγόν.
(c) Οὐδ' ὥς μίᾳσμα τοῦτο μὴ τρέσας ἐγὼ
θάπτειν παρήσω κείνον.
(d) Ἐπιστάμεσθα δ', ἐξ ὅτου λευκὴν ἐγὼ
τῆνδ' ἐκ μελαίνης ἀμφιβάλλομαι τρίχα,
μὴ πῶ ποτ' αὐτὸν ψεύδος ἐς πόλιν λακύν.
(e) Τῷ ἀθλίας ἄσσημα περιβαίνει βοῆς
ἔρποντι μᾶλλον ἄσσον.
(f) Μήτοι, κασιγνήτη, μ' ἀτιμάσης τὸ μὴ οὐ
θανεῖν τε σὺν σοὶ τὸν θανόντα θ' ἀγνίσαι.

6. 'The play is based on the conflict between divine and human law, with which is mingled the idea of *ἄτη*.' Explain this more fully, referring to incidents, arguments, or phrases of the *Antigone* when possible. 12

Or,

Describe a Greek theatre, mentioning and explaining the Greek names for the various important parts of it. Add a rough sketch, if possible.

7. (a) Parse the following Homeric forms:—*ὑβαίνεσκεν, πλάγχθη, ἐννεπε, ἰδοίαιτο, σφετέρῃσιν, ὄθι, τοῖσδεσσιν, κέκλυτε, ἔμμεναι*. 12

(b) Parse the words underlined in the following passage from the *Antigone*:—

Οὕτως ἀμυντέ' ἐστὶ τοῖς κοσμουμένοις,
 κοῦτοι γυναικὸς οὐδαμῶς ἥσσητέα.
 κρείσσον γάρ, εἶπερ δεῖ, πρὸς ἀνδρὸς ἐκπεσεῖν.
 κοῦκ ἂν γυναικῶν ἥσσονες καλούμεθ' ἂν.

GREEK.

SECOND PASS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English the following passages:—

20

(a) Κινδυνεύουσι γὰρ ὅσοι τυγχάνουσιν ὀρθῶς ἀπτόμενοι φιλοσοφίας λεληθέναι τοὺς ἄλλους, ὅτι οὐδὲν ἄλλο αὐτοὶ ἐπιτηδεύουσιν ἢ ἀποθνήσκειν τε καὶ τεθνάναι. εἰ οὖν τοῦτο ἀληθές, ἀτοπον δήπου ἂν εἶη προθυμείσθαι μὲν ἐν παντὶ τῷ βίῳ μὴδὲν ἄλλο ἢ τοῦτο, ἡκοντος δὲ δὴ αὐτοῦ ἀνανακτεῖν, ὃ πάλαι προεθυμούντο τε καὶ ἐπετῆδενον. καὶ ὁ Σιμμίας γελάσας, Νῆ τὸν Δία, ἔφη, ὦ Σώκρατες, οὐ πάνυ γέ με νῦν δὴ γελασέοντα ἐποίησας γελάσαι.

(b) Εἶεν δή, ἡ δ' ὅς ὁ Σωκράτης, τὰ μὲν Ἀρμονίας ἡμῖν τῆς Θηβαϊκῆς ἱεῖα πῶς, ὡς ἔοικε, μετρίως γέγονε· τί δὲ δὴ τὰ Κάδμου, ἔφη, ὦ Κέβης, πῶς ἱλασόμεθα καὶ τίνι λόγῳ; Σύ μοι δοκεῖς, ἔφη ὁ Κέβης, ἐξευρήσκειν· τουτονὶ γοῦν τὸν λόγον τὸν πρὸς τὴν ἁρμονίαν θαυμαστώς μοι εἶπες ὡς παρὰ δόξαν.

(c) Στήθος δὲ πλήξας κραδίην ἠνίπαπε μύθῳ·

τέτλαθι δή, κραδίη· καὶ κύντερον ἄλλο ποτ' ἔτλης.

(d) ὦ Κρίτων, ἔφη, τῷ Ἀσκληπιῷ ὀφείλομεν ἀλεκτρυόνα.

(e) Ἀπολλύμεν δὲ αὐτὰς ἐν ποίῳ ἄλλῳ χρόνῳ;

Comment on the use of the tenses ἀποθνήσκειν and τεθνάναι in passage (a), and write short explanatory notes on passages (c), (d), and (e). 12

2. Give in your own words the myth setting forth the conformation of the earth and the fate of souls of the underworld, and explain its applicability to Socrates' teaching. 18

3. Translate into English the following passages :—

20

(α) Οὗτοι παντελῶς οὐδ' εἰ μὴ ποιήσαιτ' ἂν τοῦτο, ὡς ἔγωγέ φημι δεῖν, εὐκαταφρόνητόν ἐστιν ἢ διὰ τὸν φόβον εἰδὼς εὐτρεπεῖς ὑμᾶς (εἴσεται γὰρ ἀκριβῶς· εἰσὶ γάρ, εἰσὶν οἱ πάντ' ἐξαγγέλλοντες ἐκείνῃ παρ' ἡμῶν αὐτῶν πλείους τοῦ δέοντος) ἡσυχίαν ἔχη ἢ παριδὼν ταῦτα ἀφύλακτος ληφθῇ, μηδενὸς ὄντος ἐμποδῶν πλεῖν ἐπὶ τὴν ἐκείνου χώραν ὑμῖν, ἂν ἐνδῶ καιρόν.

(β) Τί δ' οἱ Θετταλοὶ; ἄρ' οἶεσθ', ἔφην, ὅτ' αὐτοῖς τοὺς τυράννους ἐξέβαλλε καὶ πάλιν Νίκαιαν καὶ Μαγνησίαν ἐδίδου, προσδοκᾶν τὴν καθεστῶσαν νῦν δεκαδαρχίαν ἔσεσθαι παρ' αὐτοῖς, ἢ τὸν τὴν πυλαίαν ἀποδόντα τοῦτον τὰς ἰδίας αὐτῶν πρόσσόδους παραιρήσεσθαι; οὐκ ἔστι ταῦτα. ἀλλὰ μὴν γέγονε ταῦτα καὶ πᾶσιν ἔστιν εἰδέναι.

(γ) Ὅτι μὲν δὴ μέγας ἐκ μικροῦ καὶ ταπεινοῦ τὸ κατ' ἀρχὰς Φίλιππος αὐξήται καὶ ἀπίστως καὶ στασιαστικῶς ἔχουσι πρὸς αὐτοὺς οἱ Ἕλληνες, καὶ ὅτι πολλῶ παραδοξότερον ἦν τοσοῦτον αὐτὸν ἐξ ἐκείνου γενέσθαι ἢ νῦν, ὅθ' οὕτω πολλὰ προείληφε, καὶ τὰ λοιπὰ ὑφ' αὐτῷ ποιήσασθαι καὶ πάνθ' ὅσα τοιαῦτ' ἂν ἔχοιμι διεξελθεῖν, παραλείψω. ἀλλ' ὁρῶ συγκεχωρηκότας ἅπαντας ἀνθρώπους, ἀφ' ὑμῶν ἡρξαμένους, αὐτῷ ὑπὲρ οὗ τὸν ἄλλον ἅπαντα χρόνον πάντες οἱ πόλεμοι γεγόνασιν οἱ Ἕλληνικοί.

4. Give a brief summary of either the *Second Philippiic* or the *Third Philippiic*. 12

5. Write grammatical notes on the words underlined in the following passages :— 9

(a) Οἷον ἂν ὑμεῖς βούλοισθε.

(b) Καὶ ἅπανθ' ὅσα περ καὶ ἐν ἄλλοις.

(c) Τυχάνει πάντα τὰ πρῶγματα τῇ πόλει.

(d) Τὸ λυσιτελοῦν ἀγαπήσοντας.

(e) Ἦν βασιλεύς.

(f) Ὁ δὲ ταῦτα μὲν μέλλει . . . τοῖς Μεσσηνίοις.

6. Parse the following words, giving their meaning :—*εἰωθότων*, 9
περιστοιχίζεται, *ἀπαλλάξαι*, *χρωμένους*, *ἀριέναι*, *τρυφᾶν*, *διορθοῦσθαι*, *ἐπισκεψομένους*, *τετυφῶσθαι*.

GREEK.

THIRD PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into Greek:—

(a) Thereupon the men in the ships cast arrows and stones 25
against the walls, but the citizens were in no wise daunted, and
answered them with equal valour. So the battle continued with-
out decision, since neither were the attackers able to force an entry,
nor the defenders to hurl back their onset, and matters remained
thus until evening. But when it was dark, the seditious party among
the citizens stealthily opened the gate towards the West, and lighted
a beacon on the adjoining height, as a signal that they were ready to
join the invaders. At once with a loud shout the latter advanced,
and soon were in possession of the citadel with its treasures and the
sacred temple. Whereupon the citizens lost heart and no longer
struggled, thinking that the favour of the gods had passed from them.
Thus the city fell into the power of strangers. They however used
their victory kindly, injuring, when the battle was over, neither man
nor woman nor child, and giving notice that although conquerors,
they wished only to settle in the city on equal terms with the citizens,
taking their daughters as wives. So ended that famous siege.

(b) I do not believe that any nation ever entered into a great 25
controversy—and this is one of the greatest history will ever know—
with a clearer conscience and stronger conviction that it is fighting
not for aggression, not for the maintenance even of its own selfish
interest, but that it is fighting in defence of principles, the mainten-
ance of which is vital to the civilization of the world. With a full
conviction, not only of the wisdom and justice, but of the obligations
which lay upon us to challenge this great issue, we are entering into
the struggle.

Answer any THREE of the questions 2—6.

20

2. Explain with examples the use of *καίτερ' ἐν*, the Nominative and
Infinitive construction, the Genitive of Time, the Infinitive as Noun.

3. How are consecutive clauses constructed in Greek? Give three
examples.

4. What are the Aorist Participles, Active, Middle, and Passive,
of *πίθω*, *βαίνω*, *πίπτω*, *πάσχω*, *πέμπω*, *φαίνω*, *φθάνω*, *κρύπτω*, *βλέπω*, *δύναμαι*.

5. What is the Greek for: as quickly as possible, he walked against
the wind, the soldiers were lost horses and all, the general and three
others came, he rose from dinner, he treated him cruelly, you may
depart.

6. What is the force of *σύν*, *ἐπί*, *μετά*, *πρίν*, in composition? Give
examples.

Answer THREE only of the remaining questions.

30

7. Give a short account of Greek colonisation in the Mediterranean,
illustrating it by a map or maps.

8. Give a brief account of the recent archaeological discoveries in
Crete and Asia Minor, so far as they throw light on early Greek his-
tory.

9. Narrate briefly the course of events that transformed the confederacy of Delos into the Athenian Empire. What was the extent of that Empire? Examine the charge that Athens was a Tyrant City.

10. Write brief lives of three of the following :—Themistocles, Alcibiades, Epaminondas, Demosthenes, Alexander.

11. Discuss the influence of geographical considerations upon the history of the Greeks.

LATIN.

Paper-setters— { DR. H. STEPHEN, M.A., D.D.
G. H. LUCE, ESQ., B.A.
J. W. HOLME, ESQ., M.A.

FIRST PASS PAPER.

Examiner—DR. H. STEPHEN, M.A., D.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1 Translate :—

22

- (a) Nec sic incipies ut scriptor cyclicus olim :
'fortunam Priami cantabo et nobile bellum.'
quid dignum tanto feret hic promissor hiatu ?
parturiunt montes, nascetur ridiculus mus.
quanto rectius hic qui nil molitur inepte :
'dic mihi, Musa, virum, captae post tempora Troiae
qui mores hominum multorum vidit et urbes.'
non fumum ex fulgore, sed ex fumo dare lucem
cogitat, ut speciosa dehinc miracula promat.

Give some account of the different persons here referred to.

- (b) O maior iuvenum, quamvis et voce paterna
fingeris ad rectum, et per te sapis, hoc tibi dictum
tolle memor ; certis medium et tolerabile rebus
recte concedi ; consultus iuris et actor
causarum mediocris abest virtute deserti
Messalae, nec scit quantum Cascellius Aulus ;
sed tamen in pretio est : mediocribus esse poetis
non homines, non Di, non concessere columnae.
sic animis natum inventumque poema iuvandis,
si paulum summo decessit, vergit ad imum.

Parse fingeris. Explain *columnae*.

2. Explain the following passages :—

12

- (a) Nec minimum meruere decus vestigia Graeca
ausi deserere et celebrare domestica facta ;
vel qui praetextas vel qui docuere togatas.
(b) Quid autem
Caecilio Plautoque dabit Romanus ademptum
Virgilio Varioque ?

- (c) *Nec deus intersit, nisi dignus vindice nodus
inciderit; nec quarta loqui persona laboret.*
(d) *Aut agitur res in scenis aut acta refertur.*

3. (a) How does Horace illustrate the growth and decay of language? 8

- (b) What instruction does he give to epic poets?
(c) What does he say about the use of *purpurei panni* in literature?
(d) Mention any modern imitations of *De Arte Poetica*.

4. Translate:—

22

- (a) *Dum loquor, et timeo pariter cupioque repelli,
inrepuat quantis viribus unda latus!
parcite caerulei, vos parcite, numina ponti,
infestumque mihi sit satis esse Iovem.
vos animam saevae fessam subducite morti,—
si modo, qui periit, non periisse potest.*

Explain the allusion here.

- (b) *Adde, quod illius pars maxima ficta laborum,
ponitur in nostris fabula nulla malis.
denique quaesitos tetigit tamen ille penates,
quaeque diu petiit, contigit arva tamen:
at mihi perpetuo patria tellure carendum,
ni fuerit laesi mollior ira dei.*

Explain this passage fully.

- (c) *Te mea supposita veluti trabe fulta ruina est:
siquid adhuc ego sum, muneris omne tui est.
tu facis ut spoliū non sim, nec nuder ab illis,
naufragii tabulas qui petiere mei.*

Parse *fulta* and explain the passage

- (d) *Grata tua est pietas; sed carmina maior imago
sunt mea, quae mando qualiacumque legas,
carmina mutatas hominum dicentia formas,
infelix domini quod fuga rupit opus.*

To what work does Ovid here allude? What more does he say about it in the same elegy?

5. (a) What directions does Ovid give for the publication of his book of elegies? 6

- (b) What allusions does he make in this book to the causes of his exile?
(c) Describe briefly his journey to his place of exile.

6. Translate any two of the following passages:—

30

- (a) *Horace describes Homer as a great moral teacher.*

*Troiani belli scriptorem, Maxime Lolli,
dum tu declamas Romae, Praeneste relegi:
qui quid sit pulcrum, quid turpe, puid utile, quid non,
planius ac melius Chrysippo et Crantore dicit.
fabula, qua Paridis propter narratur amorem
Graecia barbariae lento collisa duello,
stultorum regum et populorum continet aestus.
rursus quid virtus et quid sapientia possit,
utile proposuit nobis exemplar Ulixem.*

qui, domitor Troiae, multorum providus urbes
et mores hominum inspexit latumque per aequor,
dum tibi, dum sociis reditum parat, aspera multa
pertulit, adversis rerum immersabilis undis.

- (b) *Ovid sends to a friend at Rome the last book of his elegies from Tomi.*

Hunc quoque de Getico, nostri studiose, libellum
littore praemissis quatuor adde meis.
hic quoque talis erit qualis fortuna poetae :
invenies toto carmine dulce nihil.
flebilis ut noster status est, ita flebile carmen,
materiae scripto conveniente suae.
integer et laetus laeta et iuvenilia lusi :
illa tamen nunc me composuisse piget.
utque iacens ripa deflere Caystrius ales
dicitur ore suam deficiente necem :
sic ego Sarmaticas longe proiectus in oras,
efficio tacitum ne mihi funus eat.

- (c) *Ovid's account of the Cave of Sleep.*

Est prope Cimmerios longo spelunca recessu,
mons cavus, ignavi domus et penetralia Somni ;
quo nunquam radiis oriens, mediusve, cadensve.
Phoebus adire potest. nebulae caligine mixtae
exhalantur humo, dubiaeque crepuscula lucis.
non vigil ales ibi cristati cantibus cris
evocat Auroram ; nec voce silentia rumpunt
sollicitive canes, canibusve sagacior anser.
non fera, non pecudes, non moti flamine rami,
humanaeve sonum reddunt convicia linguae.
muta quies habitat. saxo tamen exit ab imo
rivus aquae Lethes ; per quem cum murmure labens
invitat somnos crepitantibus unda lapillis.

LATIN.

SECOND PASS PAPER.

Examiner—G. H. LUCE, ESQ., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate into English :—

(a) Sed ut ad studiorum atque artium contentionem revertamur,
qui potest dubitari quin ad consulatum adipiscendum multo plus ad-
ferat dignitatis rei militaris quam iuris civilis gloria ? Vigilas tu de
nocte ut tuis consultoribus respondeas, ille ut eo quo intendit mature
cum exercitu perveniat ; te gallorum, illum bucinarum cantus exsus-
citat ; tu actionem instituis, ille aciem instruit ; tu caves ne tui con-
sultores, ille ne urbes aut castra capiantur : ille tenet et scit ut hos-

tium copiae, tu ut aquae pluviae arceantur; ille exercitatus est in propagandis finibus, tuque in regendis. Ac nimirum—dicendum est enim quod sentio—rei militaris virtus praestat ceteris omnibus.

Illustrate the various uses of the word *quin*.

(b) Petunt aliquid publicani; cave ne quicquam habeat momenti gratia. Supplices aliqui veniunt miseri et calamitosi; sceleratus et nefarius fueris, si quicquam misericordia adductus feceris. Fatetur aliquis se peccasse et sui delicti veniam petit; 'nefarium est facinus ignoscere.' At leve delictum est. 'Omnia peccata sunt paria.' Dixisti quippiam: 'fixum et statutum est.' Non re ductus es sed opinione; 'sapiens nihil opinatur.' Errasti aliqua in re; male dici putat.

Add a short note on the *disciplina* referred to.

(c) Ut vero iam diruebantur clamor exire iubentium instabat, iam fragor tectorum quae diruebantur ultimis urbis partibus audiebatur pulvisque ex distantibus locis ortus velut nube inducta omnia impleverat. raptim quibus quisque poterat elatis, cum larem ac penates tectaque in quibus natus quisque educatusque esset relinquentes exirent, iam continens agmen migrantium impleverat vias, et conspectus aliorum mutua miseratione integrabat lacrimas, vocesque etiam miserabiles, exaudiebantur, mulierum praecipue, cum obsessa ab armatis templa augusta praeterirent ac velut captos relinquerent deos.

Explain the construction of—*quibus quisque poterat elatis*.

(d) Pomerium verbi vim solam intuentes postmoerium interpretantur esse; est autem magis circumoerium, locus quem in condendis urbibus quondam Etrusci qua murum ducturi erant certis circa terminis inaugurato consecrabant, ut neque interiore parte aedificia moenibus continuarentur, quae nunc volgo etiam coniungunt, et extrinsecus puri aliquid ab humano cultu pateret soli. Hoc spatium quod neque habitari neque arari fas erat, non magis quod post murum esset quam quod murus post id, pomerium Romani appellarunt; et in urbis incremento semper quantum moenia processura erant tantum termini hi consecrati proferebantur.

Add a note on the word *pomerium*, and say what you know of Etruscan influence on Rome.

2. Extract from Livy's first book the main events which you imagine to have any historical truth. 12

3. Give in your own words, in *Latin*, an account not exceeding ten lines in length, *either* of the Mithridatic Wars; *or* of the fight between the Horatii and Curiatii. 12

4. Describe the *Cursus Honorum* at Rome in Cicero's time. 12

5. Explain the following passages:— 24

(a) Facis ut rursus plebes in Aventinum revocanda esse videatur.

(b) Aiunt apud sapientem valere aliquando gratiam.

(c) Intus, intus, inquam est equus Troianus.

(d) Auctorem doctrinae eius, quia non exstat alius, falso Samium Pythagoram edunt.

(e) Si a duumviris provocarit, provocatione certato.

(f) Eo magis Fabio, praeterquam quod antiquior est, crediderim . . . quam Pisoni

LATIN.

THIRD PASS PAPER.

Examiner—J. W. HOLME, ESQ., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

A. TRANSLATION.

1. Translate into Latin Prose:—

30

The generals of Augustus, in the early part of his reign, attempted the reduction of Aethiopia and Arabia Felix. They marched near a thousand miles to the south of the tropic: but the heat of the climate soon repelled the invaders, and protected the unwarlike natives of those sequestered regions. The northern countries of Europe scarcely deserved the expense and labour of conquest. The forests and morasses of Germany were filled with a hardy race of barbarians, who despised life when it was separated from freedom: and though, on the first attack, they seemed to yield to the weight of Roman power, they soon, by a signal act of despair, regained their independence. On the death of the Emperor, his testament was publicly read in the Senate. He bequeathed as a valuable legacy to his successors, the advice of confining the empire within those limits which nature seemed to have placed as its permanent boundaries: on the West, the Atlantic Ocean: the Rhine and Danube on the North: the Euphrates on the East: and towards the South the sandy deserts of Arabia and Africa.

2. Translate into Latin *five* of the following:—

20

(a) He intended to stay till the 14th of June, but changed his mind and departed on the 7th.

(b) Soldiers, were I leading to battle the troops I had with me in Gaul, I should have refrained from addressing you.

(c) It is a wise man's duty to have regard to his private fortune, without doing anything contrary to morals, laws and customs.

(d) He said that though the suspicion was ungrounded, he would never make light of it.

(e) You surely cannot wish to stay where your crimes are so notorious.

(f) I had rather be a dog, and bay the moon.

Than such a Roman.

(g) It is our duty to obey those who have a right to give us commands.

B. GRAMMAR.

1. Give the gender and genitive plural of—*pectus, tribus, poema, seges, grex*. 5

2. When are the following words followed by an indicative, and when by a subjunctive:—*qui, cum, si, quando*? 5

3. Give the singular perfect indicative and the future participle of—*sterno, quiesco, necto, percutio, antesto*. 5

4. Explain by examples the meaning of—*causative, inceptive, distributive, disjunctive, consecutive*. 5

C. ROMAN HISTORY.

THREE questions only.

1. What was the nature of the constitutional changes on the establishment of the Republic? 10
2. What were the causes of (a) Hannibal's early successes against Rome, and (b) his final failure? 10
3. Describe the Roman provinces to the East of the Mediterranean at the time of Augustus, and state how each of them came under Roman sway. 10
4. Trace, in a sketch-map, the *via Appia*, *via Flaminia*, and *via Aurelia*, marking the chief towns through which they passed. 10
5. Write a brief character-sketch of Marcus Aurelius, or, Constantine. 10

FRENCH.

Paper-setters—{ REV. FATHER E. FRANCOU, S.J.
T. S. STERLING, ESQ., M.A.

FIRST PASS PAPER.

Examiner—REV. FATHER E. FRANCOU, S.J.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate three of the six following extracts from *Cyrano de Bergerac*:—

- (a) *Lignière*. Vous allez ?—*Christian*. Chez monsieur de Valert!--
Lign. Prenez garde :

C'est lui qui vous tuera ! (*Lui désignant du coin de l'œil Roxane*).

Restez. On vous regarde.

Christian. C'est vrai ! (*Il reste en contemplation. Le groupe de tire-laine, à partir de ce moment, le voyant la tête en l'air et bouche bée, se rapproche de lui*).

Lignière. C'est moi qui pars. J'ai soif ! Et l'on m'attend--
Dans des tavernes ! (*Il sort en zigzaguant*).

Le Bref, qui a fait le tour de la salle, revenant vers *Raque-neau*, d'une voix rassurée. Pas de *Cyrano*.

(Act I. Sc. 2).

- (b) *Le Bref*. Va, ne t'attriste pas ! L'amour n'est que hasard !
Cyrano, secouant la tête. Non ! J'aime Cléopâtre : ai-je l'air d'un César ?

J'adore Bérénice : ai-je l'aspect d'un Tite ?

Le Bref. Mais ton courage ! ton esprit ! Cette petite

Qui t'offrait là, tantôt, ce modeste repas,

Ses yeux, tu l'as bien vu, ne te détestaient pas !

Cyrano saisi. C'est vrai !

(Act I. Sc. 5).

- (c) *Le Bref.* Quelle aberration !—*Cyrano.* Eh bien ! oui, c'est mon vice

Déplaîre est mon plaisir. J'aime qu'on me haïsse.
Mon cher, si tu savais comme l'on marche mieux
Sous la pistolétade excitante des yeux !
Comme, sur les pourpoints, font d'amusantes taches
Le fiel des envieux et la bare des lâches !

(Act II. Sc. 8).

- (d) *Cyrano*, Ouais !—*Christian.* Et qui te dit que je ne saurai pas ?..

Je ne suis pas si bête à la fin ! Tu verras !
Mais, mon cher, tes leçons m'ont été profitables.
Je saurai parler seul. Et, de par tous les diables,
Je saurai bien toujours la prendre dans mes bras !...
(*Apercevant Roxane, qui ressort de chez Clomire.*)
—C'est elle ! *Cyrano*, non, ne me quitte pas !
Cyrano, le saluant. Parlez tout seul, Monsieur.

(*Il disparaît derrière le mur du jardin.*)

(Act III. Sc. 4).

- (e) *Le premier.* De l'étaupe à canon que dans ies bourguignotes

On fait frire en la graisse à graisser les moyeux,
Les environs d'Arras sont très-peu giboyeux !
Un autre, entrant. Moi, j'i viens de chasser !—*Un autre,*
même jeu, j'ai péché, dans la Scarpe !
Tous, debout, se ruant sur les deux nouveaux venus.
Quoi, que rapportez-vous ?—*Un faisan ?—Une carpe ?—*
Vite, vite, monrez !—Le pêcheur. Un goujon !—*Le chasseur,*
Un moineau !

(Act IV. Sc. 2).

- (f) *Le duc (à Roxane).* Vous permettez ? Un mot. (*Il va à Le Bref. et à mi-voix.*) C'est vrai : nul n'oserait

Attaquer votre ami ; mais beacoup l'ont en haine ;
Et quelqu'un me disait, hier, au jeu, chez la Reine :
"Ce *Cyrano* pourrait mourir d'un accident."

Le Bref. Ah ?—*Le duc.* Oui. Qu'il sorte peu. Qu'il soit prudent.

Le Bref, levant les bras au ciel. Prudent ?

Il va venir. Je vais l'avertir. Oui, mais...

(Act V. Sc. 2).

2. (a) Write a few words about *Cyrano* or *Christian* in Rostand's humorous play "*Cyrano de Bergerac*." 5

Or,

- (b) What do you think is the chief merit of Rostand in this comedy? What do you know about his style and versification ?

3. (a) Give the principal parts of:—aller, voir, hair, savoir, mourir, venir. 4

Either,

- (b) Translate:—prendre l'air, il a l'air d'un brave homme, se donner des airs, c'est un propos en l'air. 3

Or,

- (c) Give *nouns* having the same root as : giboyeux, voir, revenir, offrir, amuser, profitable, frire, engraisser.

(d) Distinguish between : pêcher, pécher ; à partir de, partir pour ; chasser, chasser ; savoir, connaître.—Frame short sentences in French illustrating the difference in meaning in *two* of the above groups. 6

4. Translate *three* out of the five following passages from Britannicus :— 9

(a) *Agrippine* Que prétendez vous donc ? Pensezvous que ma voix
Ait fait un empereur pour m'en imposer trois ?
Néron n'est plus enfant : n'est-il pas temps qu'il règne ?
Jusqu'à quand voulez-vous que l'empereur vous craigne ?
Ne saurait-il rien voir qu'il n'emprunte vos yeux ?
Pour se conduire, enfin, n'a-t-il pas ses aïeux ?

(Act I, Sc. 2).

(b) *Néron*. Vous vous troublez, madame, et changez de visage ?
Lisez-vous dans mes yeux quelque triste présage ?
Junie. Seigneur, je ne vous puis déguiser mon erreur :
J'allais voir Octavie, et non pas l'empereur.
Néron. Je le sais bien, madame, et n'ai pu sans envie
Apprendre vos bontés pour l'heureuse Octavie.

(Act II, Sc. 3).

(c) *Britannicus*. Pour moi, quelque péril qui me puisse accabler,
Sa seule inimitié peut me faire trembler.
Néron.. Souhaitez-la ; c'est ce que je vous puis dire.
Britannicus. Le bonheur de lui plaire est le seul où j'aspire.
Néron. Elle vous l'a promis, vous lui plairez toujours.
Britannicus. Je ne sais pas du moins épier ses discours.

(Act III, Sc. 8).

(d) *Néron*. Narcisse, encore, un coup, jé ne puis l'entreprendre,
J'ai promis à Burrhus, il a fallu me rendre.
Je ne veux point encore, en lui manquant de foi,
Donner à sa vertu des armes contre moi.
J'oppose à ses raisons un courage inutile :
Je ne l'écoute point avec un cœur tranquille.

(Act IV, Sc. 4).

(e) *Agrippine*. Mais qu'est-ce que j'entends ? quel tumulte confus ?
Que peut-on faire ?—*Junie*, Oh ciel ! sauvez Britannicus !
Agrippine. Burrhus, où courez-vous ? Arrêter. Que veut dire . . .
Burrhus. Madame, c'en est fait, Britannicus expire ?
Junie. Ah ! mon prince !—*Agrip*. Il expire ?
Burrhus. Ou plutôt il est mort.

Madame—*Junie* Pardonnez, madame, à ce transport.

Je vais le secourir, si je puis, ou le survivre.

(Act V, Sc. III and IV)

5.

Either,

(a) It is said that the 3rd Act in "Britannicus" originally began with a conversation between Burrhus and Narcisse. At whose advice was the scene suppressed, and why ? 4

Or,

(b) Who wrote the following line: "C'est ainsi qu'un grand cœur suit penser d'un grand homme"? Of whom does he speak, under what circumstances, and for what special motive ?

Or,

(c) What tragedy does Voltaire mean when he calls it "la pièce des connaisseurs"? Point out in Britannicus three or four deviations from historical data.

6. (a) Parse fully the *eight* italicised words of Question 4 in (a) 12 and (b).

(b) Comment briefly on *quelque*, stating clearly when it is to be written in two words and when in one only. Apply this to the first line of (c), 4th question. 5

(c) Account for any three subjunctives in Question 4. 3

(d) Explain the irony in the last line of 4 (c). 1

Either,

(e) When does the past participle, constructed with the auxiliaries avoir or être require agreement in number and gender with the direct object or subject of a verb? State clearly all the different cases and frame sentences in illustration. What is the rule about the agreement of a participial adjective ? 10

Or,

(f) Correct mistakes in the following, without giving your reason for the change:—

Ils se sont battu pour une gloire éphémère. Ces messieurs sont charmant. Les méchants ont bien de la peine à rester uni. Ma socur est arrivé. Elles ont toutes écrites une belle lettre de condoléance. Voici la lettre que j'ai reçu hier. Nonsieur N. nous a tous félicité. Combien de livres aves-vous lu ? Il nous a dits de nous retirer. Ont-ils reçus ma lettre ? Ils ont beaucoup ris de cette farce. Les cinquante ans qu'ils ont tous deux vécus ont éti bien employé. La langue que Démosthène a parlé est la langue grec. Les ennemis ne se sont pas aperçu du piège qu'on leur tendait. Les chaleurs qu'il a faites l'an dernier ont fait la conversation de tout le monde. La lettre à Madame N. que ji lui ai dite de copier est terminé. Voici la lettre que je lui ai donné à copier. Leur a-t-on accordé toutes les desmandes qui'ls ont voulu ? Voici les portraits que je leur ai vus dessiner. Quant aux flatteurs, plus j'en ai connu, moins je les ai estimé. Le peu de fortune que vous avez acquis vous vendra à point.

7. Translate *three* of the five following:—

30

- (a) Je ne songeais pas à Rose ;
 Rose au bois vint avec moi ;
 Nous parlions de quelque chose,
 Mais je ne sais plus de quoi.
 J'étais froid comme les marbres ;
 Je merchais à pas distraits ;
 Je parlais des fleurs, des arbres ;
 Son oeil semblait dire : après ?

- (b) Copendant, las d'attendre un trépas sans vengeance,
Les deux camps à la fois l'un sur l'autre s'élancent,
Se heurtent, et du choc ouvrant leurs bataillons.
Mêlent en tournoyant leurs sanglants tourbillons.
- (c) Mourir sans vider mon carquois !
Sans percer, sans fouler, sans pétrir dans leur fange
Ces bourreaux barrouilleurs de lois !
Ces vers cadavéreux de la France asservie,
Egorgee ! . . . O mon cher trésor,
O ma plume, fiel, bile, horreur, dieux de ma vie,
Par vous seule je respire encor.
- (d) Tels deux fougueux taureaux, de jalousie épris,
Auprès d'une génisse au front large et superbe,
Oubliant tous les jours le pâturage et l'herbe,
A l'aspect l'un de l'autre embrasés, furieux,
Déjà le front baissé, se menacent des yeux.
- (e) Oui, vous êtes sans doute au docteur qu'on révère :
Tout le savoir du monde est chez vous retiré ;
Vous êtes le seul sage et le seul éclairé,
Un oracle, un Caton, dans le siècle où nous sommes,
Et près de vous ce sont des sots que tous les hommes.

FRENCH.

SECOND PASS PAPER.

Examiner—T. S. STERLING, ESQ., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. Translate into English *four* of the following passages:—

24

(a) Il lui fit un signe de tête et chercha à se recueillir pour continuer. Sa voix reprit une expression très douce à l'oreille et un accent paisible; il parlait du bonheur chaste des deux plus belles créatures; il peignit la candeur et l'autorité de leur regard, puis leur marche au milieu des tigres et des lions qui se jouaient encore à leurs pieds; il dit aussi la pureté de leur prière matinale, leurs sourires enchanteurs, les folâtres abandons de leur jeunesse, et l'amour de leurs propos si douloureux au prince des démons.

(b) Cependant tout était calme dans la ville de Lyon, lorsque, au grand étonnement de ses habitants, on vit arriver par toutes ses portes des troupes d'infanterie et de cavalerie que l'on savait campées et cantonnées fort loin de là. La cavalerie, portant le mousquet appuyé sur le pommeau de la selle, vit silencieusement se ranger autour du château de Pierre-Encise; l'infanterie forma la haie sur les bords de la Saône, depuis la porte du fort jusqu'à la place des Terreaux. C'était le lieu ordinaire des exécutions.

(c) L'histoire de la commune de Laon a cela de remarquable qu'elle présente en petit, de la manière la plus exacte, le type des

grandes révolutions modernes. La ville de Laon était, à la fin du XI^e siècle, l'une des plus importantes du royaume de France. Elle était peuplée d'habitants industrieux, et la force de sa position la faisait considérer comme une seconde capitale. De même qu'à Noyon et à Beauvais, l'évêque y exerçait la seigneurie temporelle.

(d) Je ne sais si vous partagerez l'impression que j'éprouve en transcrivant ici les noms obscurs de ces proscrits du XII^e siècle. Je ne puis m'empêcher de les relire et de les prononcer plusieurs fois, comme s'ils devaient me révéler le secret de ce qu'ont senti et voulu les hommes qui les portaient il y a sept cents ans. Une passion ardente pour la justice, et la conviction qu'ils valaient mieux que leur fortune, avaient arraché ces hommes à leurs métiers, à leur commerce, à la vie paisible mais sans dignité que les serfs dociles pouvaient mener sous la protection de leurs seigneurs.

(e) L'Église de Reims tombe à sa part; une cité glorieuse est livrée aux opprobres: elle crie à ceux qui passent par le chemin qu'il n'y a pas de douleur semblable à se douleur, car au dehors est la guerre, au dedans la crainte, et de plus, au dedans la guerre, car ses fils combattent contre elle, et elle n'a pas de père qui puisse la délivrer. Son unique espérance est dans Innocent, qui essuiera les larmes de ses joues. Mais jusqu'à quand, Seigneur, tarderez-vous à étendre sur elle le bouclier de votre protection?

Either,

2. Say what you know about any one of the Charters mentioned in "Lettres sur l'histoire de France." 12

Or,

Write short notes on *three* of the following: Fénelon, Anquetil, Henri IV of France, Saint-Remi, Philip I, Louis IX, Mézeray.

Either,

3. Write a short criticism of *Cinq-Mars* as a historical romance. 12

Or,

Give a brief sketch of *two* of the following: Urbain, Grandier, Jacques de Lunbardemont, Richelieu, Father Joseph.

4. Give English equivalents for *four* of the following, and use each of the four you choose in a sentence of your own:— 8

- (a) se servir de,
- (b) continuer à,
continuer de,
- (c) au plus offrant,
- (d) à la longue,
- (e) ils venaient de mettre à la mode,
- (f) revenir sur ce qu'il avait assordé,
- (g) venu exprès.

5. Give the present subjunctive in full and the present and past participles of the following rules:—*boire, croire, mettre.* 6

6. What prepositions are used with the following verbs: *empêcher, plaindre, rire, penser*? Use each in a sentence of your own formation. 8

7. Translate into English:—

(a) A ce carnage succéda un moment de stupeur. Le colonel, mettant son chapeau au bout de son épée, gravit le premier le parapet, en criant "vive l'empereur!" il fut suivi aussitôt de tous les survivants. Je n'ai presque plus de souvenir net de ce qui suivit. Nous entrâmes dans la redoute je ne sais comment. On se battit corps à 12

corps au milieu d'une fumée si épaisse que l'on ne pouvait se voir. Je crois que je frappai, car mon sabre se trouva tout sanglant. Enfin j'entendis crier victoire : et la fumée diminuant, j'aperçus du sang et des morts, sous lesquels disparaissait la terre de la redoutée. Les canons surtout étaient encombrés sous des tas de cadavres. Environ deux cents hommes debout, en uniforme français étaient groupés sans ordre, les uns chargeant leurs fusils, les autres essuyant leurs baïonnettes. Onze prisonniers russes étaient avec eux.

(b) L'histoire, occupée de faits changeant avec les siècles et 18 selon les pays, souvent privée de documents qui se sont perdus, incertaine sur des intentions demeurées obscures, réduite à combler des lacunes, à supposer des volontés, ne saurait prétendre aux démonstrations que les sciences exactes puisent dans les faits invariables de la nature. Mais si elle ne conserve pas toujours les détails éphémères des événements et les intentions périssables des hommes, elle transmet avec certitude les résultats généraux de la vie des nations et les grands motifs qui les ont produits. En effet, les événements essentiels à connaître éclatent avec évidence, s'accomplissent avec suite, et transportant jusqu'à l'historien qui sait les interroger et les comprendre, les idées, les sentiments, les besoins d'une époque, lui font découvrir la raison de leur existence et la loi de leur succession.

FRENCH.

THIRD PASS PAPER.

Examiner—T. S. STERLING, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

SECTION A.

1. Translate into French *either* (a) or (b):—

50

(a) On the fifth day of the moon, which according to the custom of my forefathers I always keep holy, after having washed myself and offered up my morning devotions, I ascended the high hills of Baghdad, in order to pass the rest of the day in meditation and prayer. As I was here airing myself [=taking the air] on the tops of the mountains, I fell into a profound contemplation on the vanity of human life; and passing from one thought to another, "Surely," said I, "man is but a shadow and life a dream." Whilst I was thus musing, I cast my eyes towards the summit of a rock that was not far from me, where I discovered one in the habit of a shepherd with a little musical instrument in his hand. As I looked upon him, he applied it to his lips, and began to play upon it.

- (b) Childe Harold had a mother—not forgot,
Though parting from that mother he did shun;
A sister whom he loved, but saw her not
Before his weary pilgrimage begun;
If friends he had, he bade adieu to none,

Yet deem not thence his breast a breast of steel;
 Ye who have known what 'tis to dote upon
 A few dear objects, will in sadness feel
 Such partings break the heart they fondly hope to heal.

SECTION B.

2. When is the English preposition *to* (the sign of the infinitive) rendered in French (1) by *à*, (2) by *de*, (3) by *pour*, (4) or not translated at all? Give examples. 8

3. Explain the various uses of *four* of the following:—*leur, en, y, soi, dont, d'où*. Give examples. *Either*, 4

4. Compose (and translate) short sentences to illustrate the uses of *three* of the following:—*quelconque, autrui, plutôt, quoique, auparavant*. 8

Or,

Explain and illustrate the uses of *ne* in subordinate clauses which in English do not require a negative.

SECTION C.

5. Answer three of the following questions:— 30

(a) Write an estimate of the character and power of Louis XIV.

(b) Write notes on *two* of the following:—

(a) The Huguenots.

(b) Mazarin.

(c) The Holy League.

(d) The Treaty of Arras.

(e) Marie Antoinette.

(c) What part did France play in Spanish affairs during the first half of the 19th century?

(d) Give a short account of the Seven Years' War.

(e) What were the effects upon Europe generally of the Revolution in France in 1830?

HISTORY.

Paper-setters— $\left\{ \begin{array}{l} \text{W. A. J. ARCHBOLD, ESQ., M.A., LL.B.} \\ \text{G. ANDERSON, ESQ.} \\ \text{A. E. BROWN, ESQ., M.A., LL.B.} \end{array} \right.$

FIRST HONOURS PAPER.

Examiner—W. OWSTON SMITH, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Not more than SEVEN questions to be attempted, of which No. 13, which carries 25 marks, must be one. The other questions carry equal marks.

1. Compare the map of Europe in 1450 with the division settled after the battle of Waterloo, indicating the main changes.

2. Give some account of the Borgias.

3. Sketch the history of affairs in Germany from the formation of the Schmalkaldic League to the outbreak of the Thirty Years' War.
4. Trace the growth of Party Government in England from the days of Queen Elizabeth to the accession of King George III.
5. Give some account of the history of Sweden under the house of Vasa.
6. What were the provisions of the Partition Treaties of 1698 and 1700? Compare them with the settlement made at the close of the War of the Spanish Succession.
7. Give some account of Frederick the Great as a ruler.
8. Write an account of the career of Talleyrand.
9. Sketch the history of Switzerland in the nineteenth century.
10. Write a history of the growth of Liberalism in Europe, after the outbreak of the French Revolution.
11. Show how the surrender of Lee altered the conditions of European politics. Narrate the events which led to the Franco-Prussian War.
12. Explain the following:—Conclave, Burgundy, Edict of Nantes, Palatinate, Girondists, Federalism, Eastern Question. •
13. Write a short essay on the importance and fate of small states in modern history.

HISTORY.

SECOND HONOURS PAPER.

Examiner—RABU JADUNATH SARKAR, M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

*Not more than SIX questions to be attempted, of which No. 12, which carries
25 marks, must be one. The other questions carry 15 marks each.*

1. Give a general account of European politics at the Peace of Câteau Cambresis.
2. Write the history of Scotland from the accession of Queen Elizabeth to the death of Darnley.
3. Give some account of the dominions of Philip II at the outbreak of the Revolt in the Netherlands. What part did England take in that revolt?
4. What are the main differences between Protestants and Roman Catholics? What were the Acts of Supremacy and Uniformity?
5. Can you justify the execution of Mary, Queen of Scots?
6. Sketch the lives and characters of Leicester and Raleigh.
7. Give some account of the voyages of Sir Francis Drake.
8. Show how the dissenting movement grew in Queen Elizabeth's reign. Explain what is meant by Calvinist, Puritan, Presbyterian, Independent.
9. State what you know of the economic changes that were taking place in England in the last half of the sixteenth century.
10. Trace the relations between England and France throughout the reign.
11. Estimate the power of the Crown in the time of Queen Elizabeth. How was the House of Commons chosen? What traces have we of the beginnings of party government?
12. Write a short essay on the literary movement of the reign. What traces can you find of the influence of the events of the time upon that movement?

HISTORY.

THIRD HONOURS PAPER.

Examiner—BABU ADHARCHANDRA MUKERJEE, M.A., B.L.

*Candidates are required to give their answers in their own words
as far as practicable.*

The questions carry equal marks.

*SIX questions to be answered, of which TWO should
be from EACH group.*

GROUP A.

1. Discuss the extent of Hellenic influence on the early history of India.
2. Trace the influence of the Deccan campaigns of the northern empires on the political stability of the north.
3. From what sources has it been possible to record the ancient history of India?
4. Discuss the extent to which Asoka's religious policy was the cause of the break-up of the Maurya Empire.
5. Give an account of the maritime enterprise of the kingdoms of the south up to the end of the tenth century.

GROUP B.

6. Discuss the personal character of Jehangir. Describe the conditions of the country, and show how far they satisfied the requirements of good government.
7. Contrast the policy of Akbar with that of Aurangzebe.
8. To what causes do you attribute the decay of the Mahratta powers?
9. 'The most paradoxical and astonishing thing of all in regard to this Empire is that the traders who made it never at any time planned it or wanted it.' How far do you think that this statement expresses truthfully the motives of the East India Company?

GROUP C.

10. What were the results of the application of English law to India in accordance with the Regulating Act? What modifications have since been made in that policy?
11. What were the main difficulties to which Warren Hastings was subjected in 'carrying the Government of India through one of the sharpest crises of our national history'?
12. 'It was the duty of Government on the one hand to preserve and strengthen all that was healthy in the social state of India, and on the other hand to wage fearless war against all that was harmful.' Discuss this statement with regard to the policy of *either* Lord William Bentinck, or Mountstuart Elphinstone.
13. What arguments can be brought forward in favour of Lord Dalhousie's policy of annexation?

HISTORY.

FOURTH HONOURS PAPER.

Examiner—BABU JADUNATH SARKAR, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value, with the exception of No. 8, to which 25 marks are allotted.

Candidates are required to answer questions 1 and 8, and any FOUR of the remaining questions.

1. Describe and illustrate, by means of a sketch-map, the political power and influence of Athens and Sparta respectively at the commencement of the Peloponnesian War.

2. Discuss the extent to which considerations of aristocracy or democracy decided the formation of alliances during your period.

3. 'The so-called Peloponnesian War has an internal consistency if we regard it as a Corintho-Athenian War. Athens could at a pinch have come to terms with all her other opponents, but not with Corinth.' (HOLM.)

Comment on this statement.

4. Discuss the sources of Greek History during the period 479-431 B.C., and estimate their comparative importance and reliability.

5. Discuss the importance of Euripides as an expounder of the intellectual movement in Greece in the fifth century B.C.

6. Describe the actual working of the Athenian Constitution during your period.

7. Write very full notes on any three of the following:—Themistocles, Brasidas, Theramenes, Nicias.

8. Write an essay on—'Greek colonial methods and policy.'

HISTORY.

FIFTH HONOURS PAPER.

Examiner—BABU ADHARCHANDRA MUKERJEE, M.A., B.L.

Candidates are required to give their answers in their own words as far as practicable.

Questions are of equal value, with the exception of No. 8, to which 25 marks are allotted.

Candidates are required to answer Questions 1 and 8, and any FOUR of the remaining questions.

1. Describe and illustrate, by means of sketch-maps, the political position in Asia Minor both before and after the peace with Antiochus in 189 B.C.

2. Describe in its main features the extension of Italy to its natural boundaries in the third century B.C.
3. Discuss the economic consequences of the Second Punic War.
4. Distinguish carefully between the different classes of Roman subject communities, and describe fully the Roman methods of administering (a) Italy, (b) the provinces.
5. Describe the rise of historical literature at Rome.
6. Discuss fully the main elements of the strength of Rome and Carthage at the commencement of the Second Punic War.
7. Discuss the extent of the influence of Hellenism upon Roman life and manners during your period.
8. Write an essay on—'The Constitution of the Roman Republic during the period of Senatorial Ascendency.'

HISTORY.

SIXTH HONOURS PAPER.

Examiner—W. OWSTON SMITH, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Not more than SIX questions to be attempted, of which Question 11 must be one.

1. 'The Coronation of Charles is not only the central event of the Middle Ages; it is also one of those very few events of which it may be said that if they had not happened the history of the world would have been different. 15
Examine this statement.
2. To what extent was the influence of the Holy Roman Empire anti-national? 15
3. Give some account of the struggle between Henry IV and the Papacy. 15
4. To what causes do you attribute the failure of Italian unity during the Middle Ages? 15
5. What were the chief causes of the downfall of Frederick Barbarossa? 15
6. What lessons in constitutional development can be learnt from the history of the Lancastrian period? 15
7. How far do you think Charles IV improved the stability of the Empire by the Golden Bull? 15
8. Is it true to say that the Hundred Years' War made modern France? 15
9. What was the effect of the Crusades on the development of Europe? 15
10. To what causes do you attribute the decline of the mediaeval Papacy? 15
11. Write an essay on *one* of the following subjects:— 25
 - (a) Feudalism.
 - (b) The growth of the towns during the Middle Ages.
 - (c) Monasticism.

HISTORY.

FIRST PASS PAPER.

Paper-setters— $\left\{ \begin{array}{l} \text{R. N. GILCHRIST, ESQ., M.A.} \\ \text{N. C. SEN, ESQ., M.A.} \\ \text{BABU BEPINBIHARI SEN, M.A.} \end{array} \right.$

Examiners— $\left\{ \begin{array}{l} \text{DR. P. BANERJEE, M.A., D.Sc.} \\ \text{MR. SANTOSHKUMAR CHATTERJEE, M.A.} \\ \text{MR. A. C. DATTA, M.A.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Only TWO questions are to be attempted in each group.

GROUP A.

1. Distinguish the Modern from the Mediaeval History of Europe in regard to her political and social condition. 12
2. Illustrate, from the history of Ferdinand and Isabella, the unification of the Spanish monarchy and its expansion as a world power. 12
3. Briefly sketch the struggle between Charles the Bold of Burgundy and Louis XI of France. In what respects does the reign of Louis mark an epoch in the history of French monarchy? 12

GROUP B.

4. What was the Schmalkaldic War? Attempt an estimate of the character and work of Maurice of Saxony. 12
5. How far was the revolt of the Netherlands due to causes other than religious? Give an estimate of the services of William the Silent in the cause of Dutch independence. 12
6. Sketch the reign of Philip IV of Spain, and account for the rapid decay of the Spanish empire. 12

GROUP C.

7. By what measures did the *Great Cardinals* consolidate and strengthen the French monarchy? Give a brief estimate of the financial reforms of Colbert. 14
8. Briefly describe the parts played by (a) the Great Elector, (b) Frederick the Great, (c) Stein, and (d) Bismarck in the organization of the German Empire. 14
9. Who were the makers of Italian unity? Mark the steps by which the unification of Italy was accomplished. 14

GROUP D.

10. What were the abuses in France in the time of Turgot? By what measures did he attempt to save the French monarchy, and why did he fail? 12

11. Illustrate, from the leading events in the career of Napoleon 12
from the rupture of the Peace of Amiens to the Battle of Waterloo,
the causes of the downfall of his power.

12. Write notes on the following :—the Council of Ten ; the 12
Battle of Lepanto ; the Edict of Nantes ; the Pragmatic Sanction ; the
Battle of Navarino ; the Holy Alliance.

HISTORY.

SECOND PASS PAPER.

Examiners—{ MR. N. K. NAG, B.A. (*Cantab*).
BABU KRISHNADHAN BANERJEE, M.A.
MR. S. KHUDABUKSH, M.A., B.C.L.

*Candidates are required to give their answers in their own words as
far as practicable.*

The questions are of equal value.

FIVE questions only to be answered.

1. Examine the points of dispute regarding the succession of Elizabeth to the English throne, and show how the succession question affected the international politics of her reign.

2. What were the chief ecclesiastical difficulties confronting Elizabeth at the beginning of her reign ? Give the main points of her Church Settlement.

3. Give a short account of the career of Mary, Queen of Scots, from her accession to her imprisonment in Lochleven Castle.

4. Sketch briefly the career of the Duke of Alva in the Netherlands, and examine Elizabeth's policy towards the Netherlands.

5. Carefully analyse the attitude of Philip II of Spain towards England during Elizabeth's reign.

6. Write a short account of the rise of the Jesuits and their influence (a) in England, (b) in Ireland, in Elizabeth's reign.

7. Show the historical importance of the following :—The battle of Langside, Ridolfi's Plot, The First General Poor Law (1601), Holinshed's Chronicle.

8. Write biographical notes on *three* of the following :—William Cecil (Lord Burleigh), Robert Devereux (Earl of Essex), Edmund Spenser, Henry, Duke of Guise.

9. Write a short essay on English maritime enterprise in the times of Elizabeth.

HISTORY.

THIRD PASS PAPER.

Examiners—{ MR. N. C. SEN, M.A.
BABU RAMESCHANDRA MAJUMDAR, M.A.
BABU ASWINIKUMAR MUKERJEE, M.A.

The questions carry equal marks.

SIX questions only are to be answered, of which TWO must be from EACH group.

Candidates are required to give their answers in their own words as far as practicable.

GROUP A.

1. Fix the chronology of the Sisunaga and the Nanda dynasties from such data as are obtainable. Narrate briefly the history of India from the earliest historical times to the invasion of Alexander.
2. Mention the various Greek invasions of India after Alexander. What led to the downfall of the Indo-Greek Kings? Estimate the extent of Hellenic influence in Ancient India.
3. Write a short sketch of the history of the Gupta emperors up to the time of the Hun invasion. What was the extent of the Gupta empire during the reign of Samudragupta?
4. Write short notes on :—
 - (a) Council of Kashmir;
 - (b) Legend of St. Thomas;
 - (c) The Chandels of Jejabhukti;
 - (d) The Yadavas of Devagiri.

GROUP B.

5. (a) "The Hindus navigated the Ocean as early as the age of the Code, but it is probable that their enterprise was confined to a coasting trade." Discuss this statement. Give a short account of commerce and trade in Ancient India.
- (b) Write a short note on the system of agriculture prevailing in ancient times in India.
6. Trace the career of Baber. Give an estimate of his character as far as it can be gathered from his memoirs.
7. Describe the relations of the Rajputs with the Moghul emperors up to the time of Aurangzebe.
8. Give an account of Akbar's revenue system. Describe his administrative arrangements.

GROUP C.

9. Discuss the foreign policy of Warren Hastings. What were the various difficulties he had to encounter during his administration?
10. Sketch the history of the relations between the East India Company and the Maharattas from 1772 to 1818.
11. What are the main features of the Permanent Settlement of Bengal introduced by Cornwallis? Criticise the measure and compare it with the land settlements introduced in other provinces about the same time.
12. What led to the First Sikh War? Trace the progress of the war. What was the system of government introduced in the Punjab after the war?

ECONOMICS.

Paper-setters— $\left\{ \begin{array}{l} \text{C. J. HAMILTON, ESQ., M.A.} \\ \text{OWSTON SMITH, ESQ., B.A.} \\ \text{M. SUBEDAR, ESQ., B.Sc.} \\ \text{W. C. WORDSWORTH, ESQ., M.A.} \\ \text{J. N. DAS GUPTA, ESQ., B.A.} \end{array} \right.$

FIRST HONOURS PAPER.

Examiner—M. SUBEDAR, ESQ., B.Sc. (Lond.).

Only six questions to be attempted.

1. Discuss the relation of Political Economy to Ethics and Psychology.
2. Criticise :—
“The greater part of the distinction between rent and interest on capital turns on the length of the period which we have in view.”
3. On what does the efficiency of labour depend? Discuss the effects of improved efficiency of labour in one industry on the wages of labour in that industry and on the welfare of the community generally.
4. What do you understand by *normal value*? Discuss normal value with reference to food products in India.
5. Explain how the Bank Rate regulates the money market. What are the consequences of a rise in bank rate on business activity generally?
6. What are the evils of badly managed currency?
7. Explain fully the causes of abnormally high profits in certain concerns and in certain industries.
8. What is a luxury? To what extent is it necessary to check outlay on luxuries? How is this to be done?
9. What items of public expenditure form legitimate objects of borrowing? What safeguards are necessary after the loan is raised? Distinguish between productive and unproductive debt.

ECONOMICS.

SECOND HONOURS PAPER.

Examiner—A. E. BROWN, ESQ., M.A., LL.B.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal numerical value.

Answer any six questions.

1. Is force or consent at the basis of the State? Estimate the part played by these two elements in political obligation.

Or,

What do you think were the chief forces binding men together in the city-state, the Roman Empire in A.D. 1, the Jewish state about 1000 B.C., the British Empire in 1910?

2. What are the necessary activities of a Government, and what others do you consider advisable in a democratic state ?

3. Write a short essay on 'Liberty,' showing the different senses in which the word can be used.

4. Briefly describe the English electoral system. What are its chief defects, and what improvements can be suggested ?

'In England the Cabinet legislates and Parliament administers.' Explain this, and show what are the relations between the Executive and Legislature in England.

5. Do you think that the events of the last thirty years have strengthened or weakened a belief in democracy ?

Or,

Write a short essay on 'Nationality,' showing how this principle has affected the history of the nineteenth century; explain the difficulties in the way of its further application.

6. What do you think is the best modern classification of states ?

ECONOMICS.

THIRD HONOURS PAPER.

Examiner—C. J. HAMILTON, ESQ., M.A.

Not more than six questions to be attempted.

1. In applying pure economic theory for the purpose of explaining problems in actual life, can you suggest any special difficulties that are met with in making such application in India ?

2. Discuss the principal advantages and disadvantages likely to arise as the result of a considerable growth of industries in India.

3. How would you account for the high rates of interest normally charged to cultivators by the mahajans ? Do you consider that it would be desirable to impose a legal maximum rate, and why ?

4. If it were necessary to increase the Revenue in India by a considerable sum, what do you think would be the best means of raising it ? Give your reasons fully.

5. Carefully explain the present land system of Bengal. Do you consider it in need of amendment ? If so, in what respects ?

6. What is meant by the standard of comfort ? Explain the difficulties in connection with a comparison of such standards as between the Indian cultivator and the English farm labourer. Are they comparable in terms of money income ?

7. If the State had a surplus of fifty crores every year for ten years to be spent on the economic development of India, how would you use the money ?

8. Give a concise explanation of the Gold Exchange Standard, referring to its chief advantages and disadvantages from an Indian point of view.

9. For what reasons is an Agricultural State Bank sometimes preferred to Co-operative Credit Banks in India ? Discuss their relative advantages.

ECONOMICS.

FOURTH HONOURS PAPER.

Examiner—G. F. SHIRRAS, ESQ., M.A., F.S.S.

Not more than SIX questions to be attempted.

1. Draw a diagram to illustrate the theory of competitive value both when supply is subject to diminishing and increasing returns and explain how the diagram is constructed. How do you distinguish between competitive and scarcity value?

2. "Wages tend to be equal to the net marginal product of the labourer." Can you explain this statement and enquire how far it accounts for the difference between the wages of men and women.

3. Discuss the question whether in modern industry there are forces making for increasingly large scale manufacture. Explain exactly what these forces are. Will they in time cause a general growth of monopolies?

4. Explain carefully how the level of prices is maintained in different countries. What is likely to be the effect of Protection on the level of prices in a country, and why?

5. What are the chief marks of a good tax system? How would you determine the ultimate incidence of a tax? Illustrate your answer by considering the incidence of an import duty on cotton goods into India.

6. Distinguish between Collectivism and Communalism, and point out any advantages which either would have over the present Industrial system.

7. What are the functions of Banking? Carefully explain their importance in modern Commerce. What is the position of the Bank of England in the English Banking system?

8. Explain how the Rates of Exchange are determined, distinguishing between exchange between two countries having a gold standard and exchange between a gold standard country and a silver standard country.

9. In paying for the expenses of war is it better to borrow money, thus increasing the National Debt, or to increase the taxation? Give your reasons.

ECONOMICS.

FIFTH HONOURS PAPER.

Examiner :—W. C. WORDSWORTH, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Six questions only to be answered including questions 1 and 2.

The questions carry equal marks.

1. Annotate four of the following:—

(a) Nature, as we are fond of asserting, creates nothing without a purpose, and man is the only animal endowed with speech.

(b) It is evident, however, that as a State advances and becomes more a unit it will cease to be a State at all.

(c) The fact is that we cannot regard all who are indispensable to the existence of a State as being citizens.

(d) Nor again would a choir-master give a place in his chorus to a member who had a louder and finer voice than all the rest.

(e) For war, as we have remarked several times, has its end in peace, and business its end in leisure.

(f) But it is not right to follow the fashion of some contemporary writers in defining Democracy without any qualification as a polity in which the masses are supreme.

2. Annotate *three* of the following :—

(a) So the nature of war consisteth not in actual fighting, but in the known disposition thereto, during all the time there is no assurance to the contrary.

(b) Liberty and Necessity are consistent.

(c) For man by nature chooseth the lesser evil, which is danger of death in resisting, rather than the greater, which is certain and present death in not resisting.

(d) The definition of injustice is no other than *the non-performance of contract*.

(e) The difference of commonwealths consisteth in the difference of the Sovereign, or the Person representative of all and every one of the multitude.

3. What is Aristotle's answer to the question: in what does the identity of the State consist?

4. Describe and discuss Aristotle's ideal State.

5. "Democracies were far less apt to be overthrown than oligarchies." Discuss this statement.

6. "The Leviathan is first and foremost a controversial episode—a fighting work." Explain.

7. To what extent was Hobbes indebted for his philosophy to earlier or contemporary writers?

8. What are the salient differences between Democracy as understood by the Greeks and the Democracy of to-day?

9. In what ways has the present war helped towards the better organization of the British Empire?

ECONOMICS.

SIXTH HONOURS PAPER.

Examiner—K. ZACHARIAH, ESQ., B.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write an Essay on *one* of the following subjects:—

100

(a) The nationalization of Railways.

(b) The federation of the British Empire, its necessity and its possibilities.

(c) Municipal trading.

(d) Commerce and war.

(e) The method of legal enactment as a means for securing industrial peace.

ECONOMICS.

. M. SUBEDAR, Esq., B.Sc.
Paper-setters— { OWSTON-SMITH, Esq., B.A.
 { S. C. RAY, Esq., M.A.

FIRST PASS PAPER.

Examiners— { MR. M. SUBEDAR, B.Sc.
 { „ E. A. HORNE, M.A.
 { BABU PRAPHULLAKUMAR CHATTERJEE, B.Sc.

Candidates are required to give their answers in their own words as far as practicable.

The questions carry equal marks.

Only SEVEN questions to be attempted.

1. What is the subject-matter of economics ? Explain in what way it is a social science, and bring out in your answer its relation to other social sciences.
2. What are the factors leading to localization of industry ? What are the advantages of such localization ? In what industries is localization impossible, and why ?
3. What do we understand by a 'market' in economics ? What are the limitations with regard to time and space to which markets are subject ?
4. How is the value of an article determined when the production of it is in the hands of an individual or a single corporation ? Under what circumstances can a monopoly be an advantage to the community ?
5. What do you understand by normal value ? Of the *factors* affecting the demand and the supply of a commodity, which are more important with regard to normal value, and why ?
6. What is Gresham's Law ? How does it work, and in what cases is it applicable ?
7. What are the principal considerations which are put forward by protectionists in support of their doctrine ?
8. Explain the following :—
 'The rate of wages is determined by the marginal productivity of labour.'
9. What is a luxury ? Under what circumstances is luxury justified ?
10. Discuss the nature of profits. Are profits 'legalized robbery' ? What is the economic justification of profits ?

ECONOMICS.

SECOND PASS PAPER.

Examiners— { MR. R. N. GILCHRIST, M.A.
 „ P. MUKHERJEE, M.A.
 „ P. C. BANERJEE, B.Sc.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The questions are of equal numerical value.

Answer any SEVEN questions.

1. State and discuss the best modern definition of sovereignty, and explain the difficulties in the way of arriving at an accurate one.
2. What is Law ? Explain what is meant by 'Common Law,' 'International Law,' 'Neutral Law.'
3. Define Aristocracy. Should any class have a privileged position with regard to legislation ? If so, how should such a class be selected ?
4. Describe an ideal representative system for a modern state.
5. What devices are now in use or can be suggested to expedite Parliamentary business in democratic countries ?
6. What is party government ? Describe the parties existing in any two or three modern states, and the methods of forming and controlling them.
7. Compare local government in England, France, and India.
8. What plans have been tried to increase the influence of voters upon their representatives ?
9. Compare Canada, the United States, and Germany as federations.
10. What are the true aims of the State ? How can order be reconciled with liberty, and the rights of the State with those of individuals ?

ECONOMICS.

THIRD PASS PAPER.

Examiners— { MR. S. C. BASU, B.A., A.M.
 „ J. C. COYAJI, B.A., LL.B.
 „ S. C. RAY, M.A.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

Answer Question 1 and any FIVE of the remainder.

1. What is the Paper Currency Reserve ? In what form is it kept, 20
 and what is the object of keeping it ?
 Explain the usefulness of each of its component parts.

Why is it considered advisable to keep a portion of the Reserve in London ?

2. India is called a Debtor country on account of her many foreign obligations. What is the nature of these obligations ? Explain the process by which they are discharged. 16

3. Discuss critically the question whether Famines in India are famines of food or famines of money. 16

4. State the disadvantages of large scale agriculture generally. Examine to what extent they hold good in India. 16

How far is co-operative agriculture possible in Bengal ?

5. The following are among the causes of high prices in India :— 16

(a) Development of communications and lowering of the cost of transport ;

(b) Growth of banking facilities and development of credit.

How, in your opinion, do these causes operate to raise prices ?

6. Define the following, bringing out clearly the leading ideas in each :— 16

(a) Cadastral survey.

(b) Records of Rights.

(c) Settlement of Land Revenue.

(d) Redemption of Land Revenue.

(e) Resumption of land grants.

What are the main features of the Permanent Settlement ?

7. Describe the general principles underlying the system of *Palm* tenures in Bengal ; and examine their social and economic effects. 16

8. Enumerate the actual and possible benefits of Co-operative Credit Societies. 16

9. Write a short critical note on the economic effects of the employment of foreign capital in India. 16

PHILOSOPHY.

DR. H. STEPHEN, M.A., D.D.

P. K. CHAKRAVARTI, Esq., M.A.

Paper-setters— { DR. P. K. RAY, D.Sc.
BABU AMBICACHARAN MITRA, M.A.
DR. RAMDAS KHAN, M.A., Ph.D.
P. K. SEN, Esq.

FIRST HONOURS PAPER.

*Examiner—*DR. ADITYANATH MUKERJEE, M.A., Ph.D.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Answer the first THREE questions and any THREE others.

1. Define Natural Science. Define Psychology. Discuss the question whether or how far Psychology can be studied according to the methods of Natural Science.

2. Explain how Aesthetic Sentiment differs from the other Emotions. Sketch any attempts that have been made to explain the grounds of the Beautiful and the Sublime.

3. Analyse fully an act of Will, exhibiting clearly the different elements involved, and explain in what Freedom of Will consists, and how it is possible.

4. Sketch briefly the structure of the Human Brain, and state the functions of the principal parts, so far as known.

5. Define Matter. Discuss the question whether our Cognition of a Material World is an Intuition, or an Inference, or an Illusion, defining your terms and giving reasons.

6. What is Sensation? Do you think it possible to explain Knowledge wholly from Sensations? Examine briefly different opinions that have been held on this subject.

7. Explain the nature of Constructive Imagination, analysing an example fully; and show how Imagination enters into History, Science, and Art.

8. What is meant by the Law of Conservation? Show how it may be applied to explain Pleasure and Pain, and to supply a ground for Ethical Judgment.

PHILOSOPHY.

SECOND HONOURS PAPER.

Examiner—BABU KRISHNACHANDRA BHATTACHARYYA, M.A.

Candidates are required to give their answers in their own words as far as practicable.

All the questions bear equal marks.

1. Examine the relation of Ethics to Metaphysics, showing whether a Science of Ethics is or is not dependent on a system of Metaphysics.

2. What is Pleasure psychologically considered? Examine fully the theory which makes the pleasure of self to be the ultimate standard of Moral Judgment.

3. Explain the meaning of an Organism, giving illustrations. Compare Human Society with an Organism, exhibiting analogies and differences; and explain how the organic nature of Society would affect the theory of right and wrong.

4. Explain fully the meaning and grounds of Merit and Guilt; and state and examine the different theories that have been held regarding Reward and Punishment, giving your own conclusion and reasons.

5. *Either,*

(a) "Right and Wrong are known by a Sense or Feeling"; "Right and Wrong are known by an exercise of Intellect or Reason": explain both these theories fully, and give your own conclusion with regard to them, with your reasons.

Or,

(b) Give a psychological analysis of Sympathy. Show how Hobbes and his school have attempted to explain Sympathy as an Egoistic Feeling.

Give your own opinion on this subject, and exhibit the relation between Sympathy and Moral Judgment.

6. *Either,*

(a) What is the Character of a person? What is meant by saying that Character is *innate*, and by saying that it is *acquired*? State your own conclusion on this subject, explaining your meaning fully, and giving your reasons.

Or,

(b) Explain fully the meaning of Freedom and Necessity in relation to Voluntary Action, and discuss the question whether Freedom is essential to Morality.

PHILOSOPHY.

THIRD HONOURS PAPER.

Examiner—J. LANGLEY, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Answer SIX questions only.

1. Consider the claims of (a) Monism, (b) Dualism, as a satisfactory metaphysical theory.

2. Explain the doctrine of Evolution with reference to (a) a purely mechanical, (b) a teleological conception of Nature.

3. Critically discuss the doctrine of Free Will, indicating what you consider to be the limits of Libertarianism and the drawbacks of Determinism.

4. It has been said that the key to ancient philosophy is the distinction between Being and Appearance, and the key to modern philosophy is the distinction between the Subjective and the Objective. Justify this proposition. Briefly trace the conflict between Idealism and Realism in modern philosophy.

5. In what sense is our experience a unity, and in what sense is it a manifold? Discuss, with special reference to the question of the validity of knowledge.

6. Do you believe in Creation? Clearly explain your position. Show how, if at all, you can reconcile it with the modern doctrine of Evolution.

7. Explain the relation of Metaphysics to Ethics and Religion.

8. What is your idea of the position of evil in the universe? Is the existence of evil compatible with goodness, joy, perfection of life? Give reasons for your answer.

9. Give a critical exposition of the doctrine of the Immanence or Transcendence of God.

PHILOSOPHY.

FOURTH HONOURS PAPER.

Examiner—DR. W. DOUGLAS, M.A., B.D., D. PHIL.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. State clearly and accurately Martineau's doctrine of Immediate Perception with special reference to the Ontological elements involved in it. 10
2. How does Martineau show that a Cause consists of a nonphenomenal as well as a phenomenal element and the former is power and the latter a selective act? 16
3. Explain Martineau's doctrine of Space as a condition of Divine Causality, and compare it with the doctrines of those who assume matter as a condition, and of those who do not assume any condition, of the Causality of God. Which of these doctrines appears to you to be the least objectionable? 16
4. State what Martineau means by an Intuition, and explain his doctrine of the intuition of an objective authority in the case of moral experience. 10
5. How does Martineau show that the constitution of our moral nature is unintelligible, except as living in response to an objective Perfection pervading the universe with Holy Law? 16
6. Give a critical account of Martineau's doctrine of the immanence and transcendence of God in the universe. 16

Or,

Explain and criticize Martineau's doctrine of second causes and forces of Nature.

7. Give a critical account of Professor William Knight's doctrine of the Theistic Intuition. 16

Or,

Give a critical account of Flint's method of proving God to be an infinite, eternal, perfect, and necessary Being.

PHILOSOPHY.

FIFTH HONOURS PAPER.

Examiner—DR HIRALAL HALDAR, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Only six questions to be answered.

1. What are Bacon's contributions to European thought? Fully discuss the question.
2. State and examine the Cartesian Dualism.
3. Reproduce Locke's criticism of the theory of Innate Ideas, and show how Leibniz tries to meet it.
4. Trace the influence of Locke and Berkeley in Hume's philosophy. Discuss Hume's theory of causality.
5. Give an exposition of Leibniz's theory of monads, and compare it with materialistic atomism.
6. Give a short account of Kant's theory of Space and Time, and show how it helps towards the solution of the Antinomies.
7. State and examine Kant's theological position.
8. Give a short sketch of the philosophy of Common Sense as propounded by Reid.

PHILOSOPHY.

SIXTH HONOURS PAPER.

Examiner—REV. DR W. S. URQUHART, M.A., D. PHIL.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. How does Berkeley remove 'the mist and veil of words' and then refute materialism and atheism from empirical principles? 50
2. How does Berkeley show that the only noumenal realities are God and human minds?
3. What is Hume's starting-point, and what is his conception of the method of philosophical procedure?
4. What is Hume's most distinctive contribution to psychology? How does he complete the work of empiricism?

ESSAY.

Write an essay on any one of the following:—

50

- (a) The Practical Man and the Philosopher.
- (b) The Claims of Naturalism.

- (c) Pessimism and Self-denial.
- (d) Life as a Starting-point for Thought.
- (e) Philosophy as the Extension of Science.
- (f) Positivism and Agnosticism.

PHILOSOPHY.

Paper-setters— { DR. H. STEPHEN, M.A., D.D.
 { BABU AMBICACHARAN MITRA, M.A. Ph.D.
(Pass). { DR. RAMDAS KHAN, M.A., Ph.D.

FIRST PASS PAPER.

Examiners— { BABU KRISHNACHANDRA BHATTACHARYYA,
 { M.A.
 { BABU KHAGENDRANATH MITRA, M.A.
 { HEMCHANDRA DE, M.A.
 { SUSILKUMAR MAITRA, M.A.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

1. *Either,*

(a) 'Brain and Mind': describe briefly the structure of the Human Brain, and explain the relation between Brainwork and Mind-work, giving illustrations. 17

Or,

(b) 'Judgment and its Categories': explain the nature of Judgment, analysing any example. What is meant by Categories of Judgment? What do you consider to be the fundamental Categories? Give examples.

2. *Either,*

(a) Define three fundamental 'elements' or 'factors' of mind as a whole, and show clearly their relation to one another, with illustrations. 17

Or,

(b) Define Emotion, and analyse any example of Emotion, showing how it arises, and explaining its connexion with the organism.

3. Explain fully how you know the existence (a) of a material word, and (b) of other mental beings like ourselves. 16

4. Explain the nature of Expectation, analysing an example fully, and show in what points it differs from Memory and from Constructive Imagination, illustrating your meaning with examples. 17

5. Explain the nature and origin of Habit, and exhibit clearly the points of difference between Habit and Instinct, with illustrations. 16

6. Define Volition, and analyse a concrete example, exhibiting the different elements included. What is meant by Freedom of Volition? 17

PHILOSOPHY.

SECOND PASS PAPER.

Examiners—{ DR. N. N. SEN GUPTA, M.A., PH.D.
 DR. P. D. SASTRI, M.A., PH.D.
 REV. DR. W. S. URQUHART, M.A., D. PHIL.
 DR. ADITYANATH MUKHERJEE, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

1. What is the proper subject-matter of Ethics? How is Ethics related to Politics?

2. Distinguish between Conscience and Prudence, and determine their relative place in the human constitution.

Or,

Distinguish between Duty and Merit. How are degrees of Merit to be estimated?

3. What do you understand by 'Conflict of Duties'? How should an individual act in such a case?

Or,

Indicate the character and course of Moral Progress. Is it consistent with the Intuitionist Theory of Morals?

4. Give a critical account of the Moral Standard advocated by any one of the following writers :—(a) Bentham, (b) Bain, (c) Martineau.

5. Distinguish between Natural and Moral Evil. Are they connected in any way?

Or,

Distinguish between Hedonism and Eudaemonism, and estimate their relative values as moral theories.

6. Explain the relation of the Individual to Society, and point out the importance of the relation in morals.

Or,

Determine the character of Volition, indicating its relation to Desire and Motive.

PHILOSOPHY

THIRD PASS PAPER.

Examiners— { BABU BIRCHANDRA SINHA, M.A.
 { MR. P. K. CHAKRABARTI, M.A.
 { REV. G. EWAN, M.A.
 { DR. RAMDAS KHAN, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Only SIX questions to be attempted.

1. Give a detailed and critical exposition of Realism and Idealism as metaphysical doctrines.
2. Discuss critically the problems of 'Transcendence' and 'Immanence' in their bearings upon the questions of Ethics and Theology.
3. What is the place of 'Self' in Reality, and how is the Finite Self related to the Absolute Self?
4. What is your conception of Immortality?
5. What is Epistemology?
Discuss the theories of the Methods and Limits of Knowledge.
6. Examine critically whether Materialism can be accepted as an adequate and satisfactory view of the Universe.
7. Discuss in detail the Mechanical and Teleological views of the Universe.
8. Explain fully the relation of Philosophy to the Sciences.
9. Write short explanatory notes on the following :—category, automatism, epigenesis, noumenon, truth, pragmatism, dialectic, monism.

B.A. AND B.Sc. EXAMINATIONS.

1917.

MATHEMATICS.

HON. JUSTICE SIR ASUTOSH MUKERJEE,
KT., C.S.I. M.A., D.L.

HON. BABU MAHENDRANATH RAY, C.I.E.,
M.A., B.L.

Paper-setters— $\left\{ \begin{array}{l} \text{DR. SYAMADAS MUKERJEE, M.A., PH.D.} \\ \text{RAI BAHADUR ABINASHCHANDRA BASU, M.A.} \\ \text{BABU INDUBHUSAN BRAHMACHARI, M.A.} \\ \text{DR. C. E. CULLIS, M.A., PH.D.} \end{array} \right.$

FIRST HONOURS PAPER.

Examiner—DR. HARIDAS BAGCHI, M.A., PH.D.

*Candidates are required to give their answers in their own words
as far as practicable.*

Full marks for any SIX answers.

1. Prove the Binomial Theorem for a positive integral index.

Sum the series

$$\frac{2}{9} + \frac{2}{12} \left(\frac{2}{9}\right)^2 + \frac{2 \cdot 5}{13} \left(\frac{2}{9}\right)^3 + \frac{2 \cdot 5 \cdot 8}{14} \left(\frac{2}{9}\right)^4 + \dots$$

✓ 2. Prove that, if a and b are positive and unequal, $\frac{a^m + b^m}{2} > \left\{ \frac{a+b}{2} \right\}^m$.

except when m is a positive proper fraction.

✓ 1. If s is the sum of n positive unequal quantities a, b, c, \dots , then

$$\frac{s}{s-a} + \frac{s}{s-b} + \dots > \frac{n^2}{n-1}.$$

✓ 3. Obtain the ordinary test of convergency and divergency of an infinite series.

Test the nature of the series $1 + \frac{2^p}{12} + \frac{3^p}{13} + \frac{4^p}{14} + \dots$ for all values of p .

✓ 4. Define a recurring series. What do you understand by its 'scale of relation'?

Prove that every A. P. is a recurring series, and that its generating function is $\frac{a + (b-a)x}{(1-x)^2}$, a being the first term and b the common difference.

5. If $\frac{p_n}{q_n}$ is the n th convergent to a continued fraction and a_n the corresponding quotient, find the value of

$$p_{n+2} q_{n-2} - p_{n-2} q_{n+2}$$

in terms of the quotients.

If $\frac{p_n}{q_n}$ is the n th convergent to the continued fraction

$$\frac{1}{a + \frac{1}{b + \frac{1}{a + \frac{1}{b + \dots}}}}$$

find the relation between p_{n+2} , p_n , and p_{n-2} in its simplest form.

6. Prove that the product of two determinants of the third order is a determinant of the same order.

Find the value of the following determinant

$$\begin{vmatrix} -2a, & a+b, & a+c \\ b+a, & -2b, & b+c \\ c+a, & c+b, & -2c \end{vmatrix}.$$

7. If a, b are the roots of $x^2+px+1=0$ and γ, δ are the roots of $x^2+qx+1=0$, show that

$$(a-\gamma)(b-\gamma)(a+\delta)(b+\delta)=q^2-p^2.$$

8. Obtain the equation the roots of which are the squared differences of the roots of the cubic

$$a_0x^3+3a_1x^2+3a_2x+a_3=0.$$

9. Define a reciprocal equation. Show that all reciprocal equations may be reduced to equations of an even degree.

10. If a, b, γ, δ are the roots of the biquadratic $f(x)=0$, prove that $f'(a)$ can be expressed as a product of three factors.

11. Find the relation between p, q, r in order that the roots of the cubic $x^3-px^2+qx-r=0$ may be the cosines of the angles of a triangle.

12. Apply Sturm's theorem to determine the position of the negative root of

$$2x^4-13x^2+10x-19=0.$$

MATHEMATICS.

SECOND HONOURS PAPER.

Examiner—DR. SYAMADAS MUKERJEE, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

Full marks may be obtained by answering any EIGHT questions.

1. Prove by induction formulae

$$\cos(a_1 + a_2 + \dots + a_n) = C_n - 2S_2C_{n-2} + 2S_4C_{n-4} - \dots,$$

$$\sin(a_1 + a_2 + \dots + a_n) = 2S_1C_{n-1} - 2S_3C_{n-3} + 2S_5C_{n-5} - \dots,$$

where $S_r C_{n-r}$ means the product of r sines and $n-r$ cosines.

Obtain all the solutions of the equation

$$\cos(x-a) \cos(x-b) \cos(x-c) = \cos a \cos b \cos c \cos x + \sin a \sin b \sin c \sin x.$$

2. Obtain expansions for $\cos \theta$ and $\sin \theta$ in ascending powers of θ , and show that Demoivre's Theorem is equivalent to the equation

$$(e^{i\theta})^m = e^{im\theta},$$

where θ and m are real, and $i = \sqrt{-1}$.

If a and m are given complex numbers, find all the values of a^m . In particular find the values of i^i .

3. If m and p are positive integers, find the general law of the coefficients in the expansion

$$2^{m-1} \cos^m \theta = C_0 \cos m\theta + C_1 \cos(m-2)\theta + C_2 \cos(m-4)\theta + \dots,$$

and show that the last term is $\frac{1}{2}C_p$ when $m=2p$, and $C_p \cos \theta$ when $m=2p+1$. Deduce the corresponding expansions for $2^{m-1} \sin^m \theta$.

Prove that

$$2^3 \sin^5 \theta \cos^4 \theta = \sin 9\theta - \sin 7\theta - 4 \sin 5\theta + 4 \sin 3\theta + 6 \sin \theta.$$

4. If $f(\theta) = \cos \theta$ or $f(\theta) = \frac{\sin \theta}{\theta}$, prove that

$$f(\theta) = \left(1 - \frac{\theta^2}{a_1^2}\right) \left(1 - \frac{\theta^2}{a_2^2}\right) \left(1 - \frac{\theta^2}{a_3^2}\right) \dots$$

where a_1, a_2, a_3, \dots are the positive non-zero roots of the equation $f(\theta) = 0$ arranged in ascending order of magnitude.

Hence show that

$$\frac{\pi^2}{6} = \frac{1}{1^2} + \frac{1}{2^2} + \frac{1}{3^2} + \dots = \frac{2^2}{2^2-1} \cdot \frac{3^2}{3^2-1} \cdot \frac{5^2}{5^2-1} \dots \frac{p^2}{p^2-1} \dots$$

where 2, 3, 5, ..., p , ... are all the prime numbers.

5. Perform the following summations:

$$(1) \cos a + \cos(a+2\theta) + \cos(a+3\theta) + \dots \text{ to } n \text{ terms;}$$

(2) $\sin a + 2 \sin 2a + 3 \sin 3a + 4 \sin 4a + \dots$ to n terms ;

(3) $1 + x \cos a + \frac{x^2 \cos 2a}{2!} - \frac{x^3 \cos 3a}{3!} + \dots$ to infinity.

6. If the two circles

$$x^2 + y^2 + 2gx + 2fy + c = 0, \quad x^2 + y^2 + 2g'x + 2f'y + c' = 0,$$

have radii r and r' and intersect at an angle ϕ , prove that

$$2gg' + 2ff' - c - c' = \pm 2rr' \cos \phi.$$

Find the equation of a circle which cuts three given circles orthogonally.

7. Find the equation of a parabola in its simplest form.

Two chords of a given parabola of equal lengths are drawn in two given directions. Prove that the locus of their point of intersection is a straight line.

8. How can you recognize by inspection that the following two equations represent an ellipse and a parabola respectively ?

(1) $(x + 2y \tan a)^2 + y^2 = 1 :$

(2) $9x^2 - 24xy + 16y^2 + 44x + 8y + 5 = 0.$

Find the positions and magnitudes of the principal axes of the ellipse (1), and also the vertex, transverse axis, and latus rectum of the parabola (2).

9. If ϕ is a variable parameter, show that the locus of the point $x = a \cosh \phi$, $y = b \sinh \phi$ is a hyperbola. Find the equation of the normal to the hyperbola at the point ϕ ; and show that if $c^2 = a^2 + b^2$, the point of intersection of the normals at the points $\phi = \alpha + \beta$, $\phi = \alpha - \beta$ is given by

$$x = \frac{c^2 \cosh \alpha \cdot \cosh (\alpha + \beta) \cosh (\alpha - \beta)}{a \cosh \beta},$$

$$y = - \frac{c^2 \sinh \alpha \cdot \sinh (\alpha + \beta) \sinh (\alpha - \beta)}{b \cosh \beta}.$$

Hence determine the centre of curvature at the point ϕ , and show that the locus of the centres of curvature is

$$(ax)^{\frac{2}{3}} - (by)^{\frac{2}{3}} = (a^2 + b^2)^{\frac{2}{3}}.$$

10. Define and determine (1) the polar of a given point, (2) the pole of a given straight line, with respect to the general conic; and show that if the polar of P passes through Q , then the polar of Q passes through P .

If OI , OP , OJ , OQ is a harmonic pencil, OP and OQ being tangents to the conic, show that OJ passes through the pole of OI .

11. Find the condition that the straight line $ax + by = 1$ shall be a tangent to the conic

$$ax^2 + 2hxy + by^2 + 2gx + 2fy + c = 0;$$

and show that it is identical with the condition that the pole of that straight line with respect to the circle $x^2 + y^2 = 1$ shall lie on the conic

$$Ax^2 + 2Hxy + By^2 - 2Gx - 2Fy + C = 0.$$

12. Show that a conic can be drawn to pass through any five given coplanar points. Also prove that there is in general only one such conic, and state the exceptional case.

If a conic passes through the four corners A , B , C , D of a given quadrilateral, show that the locus of its centre is another conic whose centre is the centre of mass of equal particles placed at A , B , C , D .

MATHEMATICS.

THIRD HONOURS PAPER.

Examiner—DR. HARIDAS BAGCHI, M.A., PH.D.

GROUP A.

Candidates are permitted to select six questions

1. Find the distance between the lines
- 13

$$\left. \begin{aligned} 2x + y - z &= 0 \\ x - y + 2z &= 3 \\ x + 2y - 3z &= 4 \\ 2x - 3y + 4z &= 5 \end{aligned} \right\}$$

2. Transform
- 13

$$11x^2 + 10y^2 + 6z^2 - 8yz + 4zx - 12xy - 12 = 0,$$

when lines through the origin whose direction cosines are

$$\left(\frac{1}{3}, \frac{2}{3}, \frac{2}{3}\right), \left(\frac{2}{3}, \frac{1}{3}, -\frac{2}{3}\right), \left(-\frac{2}{3}, \frac{2}{3}, -\frac{1}{3}\right)$$

are taken as new coordinate axes.

3. Obtain the equation of the cone generated by revolving the line
- 13
-
- $2x + 3y = 15$
- about the
- x
- axis, and find its vertex.

4. Prove that
- 13

$$4x^2 - 9y^2 - 16z^2 = 25$$

is a hyperboloid of two sheets. Give a graphical representation.

5. Examine the nature of the surface
- 13

$$3x^2 - y^2 + 2z^2 + 6yz - 4zx - 2xy - 14x + 4y + 20z + 21 = 0. \quad 13$$

6. Prove that every generator of the asymptotic cone of a central quadric is tangent to the surface at infinity. From this property, derive a definition of an asymptotic cone.
- 13

7. Prove that the planes
- 13

$$z = \lambda$$

intersect the quadric

$$2x^2 - y^2 + 3z^2 + 4xz - 2yz + 4x + 2y = 0$$

in hyperbolas.

Form the equations of the locus of the centres of these hyperbolas.

8. Find the locus of the equal conjugate diameters of the ellipsoid
- 13

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1.$$

9. Determine the principal planes of the quadric
- 13

$$14x^2 + 14y^2 + 8z^2 - 4yz - 4zx - 8xy + 18x - 18y + 5 = 0.$$

10. Calculate the radius of a Circular Section of
- 13

$$2x^2 + 5y^2 + 3z^2 + 4xy = 1.$$

11. The locus of intersection of three mutually perpendicular planes, each of which touches three given confocal quadrics, is a sphere. 13

12. Enunciate, and from Meunier's Theorem find the principal radii at the origin of

$$2z = 7x^2 + 6xy - y^2.$$

GROUP B.

Candidates are permitted to select TWO questions.

13. Assuming that the vector of the product of two parallel vectors is zero, prove by expansion of $V(a + \beta)(a - \beta)$ that $Va\beta + V\beta a = 0$. 11

14. $Va\beta V\gamma\delta + V\delta\gamma V\delta a + V\gamma\delta V\beta + V\delta a V\beta\gamma$ is a scalar. Interpret geometrically. 11

15. Prove that 11

$$Vap V\beta p + (Va\beta)^2 = 0$$

is the equation of a hyperbola in p , of which the asymptotes are parallel to a, β .

16. A particle is moving under the action of a constant force. Prove by vectors that the hodograph is a straight line and that the path is a parabola. 11

MATHEMATICS.

FOURTH HONOURS PAPER.

Examiner—DR. SYAMADAS MUKHERJEE, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Candidates are permitted to attempt TEN questions only.

1. If $y = \sin^{-1}x$, prove that 10

$$(1-x^2) \frac{d^{n+2}y}{dx^{n+2}} - (2n+1)x \frac{d^{n+1}y}{dx^{n+1}} - n^2 \frac{d^n y}{dx^n} = 0.$$

2. Find the first four terms in the expansion of $(1+x)^{\frac{1}{x}}$ in ascending powers of x . 10

3. Evaluate $(\sin x)^{\tan x}$ when $x=0$. 10

Or,

$$\frac{e^x + \sin x - 1}{\log(1+x)} \text{ when } x=0.$$

4. In a plane triangle, if the angles and sides receive small variations, prove that

$$\tan A \cdot \Delta b = b \Delta C,$$

a and B being constant.

5. Given in a plane triangle two sides (a, b), find the maximum and minimum values of

$$\frac{1}{c} \cos \frac{A}{2}.$$

Or,

Through a fixed point within a given angle, draw a line so that the triangle formed shall be a minimum.

6. Prove that the reciprocal polar, with respect to the origin, of an equiangular spiral, is another spiral equal to the original one.

7. If the origin be situated on a curve, prove that its first pedal passes through the origin and has a cusp at that point.

8. Find the radii of curvature at the origin of the two branches of the curve

$$ax^3 - 2hxy + by^3 = x^4 + y^4.$$

9. Trace the curve

$$x^3 - 3axy + y^3 = 0,$$

and exhibit its asymptote.

10. Integrate

$$\int \frac{x^2 dx}{x^{12} - 1}, \quad \text{or,} \quad \int \frac{dx}{1 + x^4}.$$

11. Integrate

$$\int e^{ax} \sin^2 x \, dx, \quad \text{or,} \quad \int \frac{\cos \theta \cdot d\theta}{(5 + 4 \cos \theta)^2}.$$

12. Prove that

$$\int_0^x e^{-x} \cdot x^n dx = \frac{1}{n},$$

Or,

$$\int_0^1 \frac{\log x \cdot dx}{1+x} = -\frac{\pi^2}{12}.$$

13. Prove that

$$\int_1^x \frac{e^{-ax} \sin mx}{x} dx = \tan^{-1} \left(\frac{m}{a} \right),$$

Or,

$$\int_0^x e^{-x^2} dx = \frac{\sqrt{\pi}}{2}.$$

14. Calculate the area between the Witch of Agnesi 10

$$xy^2 = 4a^2(2a - x),$$

and its asymptote.

15. Divide an elliptic quadrant into two parts whose difference shall be equal to the difference of the semi-axes. 10

16. Establish the theorem of Fourier 10

$$2\pi b(x) = \int_{-x}^x \int_{-x}^x \phi(t) \cos u(t-x) du dt.$$

17. Integrate 10

$$\frac{dy}{dx} + \frac{1}{x} \tan y = \frac{1}{x^2} \tan y \sin y.$$

18. Integrate 10

$$\left(\frac{dy}{dx}\right)^2 + \frac{dy}{dx} = \frac{y}{x}.$$

19. Integrate 10

$$\left(\frac{dy}{dx}\right)^2 + 2x \frac{dy}{dx} = y.$$

20. Integrate 10

$$\frac{d^2y}{dx^2} + x^3 \frac{dy}{dx} - x^2y = e^3 e^{-\frac{x^4}{4}}.$$

MATHEMATICS.

FIFTH HONOURS PAPER.

Examiner—BHUPATIMOHAN SEN, ESQ., M.Sc.

Candidates are required to attempt only FOUR questions from each group.

The questions carry an equal number of marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP A.

1. Write a short note on the use of the 'graphic method' in statics.

A beam ABCD (AB=CD) is supported horizontally on two vertical props at B and C and loaded with given weights at A and D. Construct the diagram of bending moments when the loads are (1) equal and (2) unequal.

2. State the principle of Virtual Work.

ABCD is a parallelogram of freely jointed rods; a point P on AB is joined to a point Q on CD by a string and R on AD to S on BC by

another string. If the tensions in these strings be T and T' , show that for equilibrium,

$$\frac{T}{PQ} \cdot \frac{AP-DQ}{AB} = \frac{T'}{RS} \cdot \frac{BS-AR}{AD}.$$

3. Write a short note on the 'efficiency of a machine.' Show that the efficiency of a screw is the greatest when its angle is $\frac{\pi}{4} - \frac{\lambda}{2}$, λ being the angle of friction.

4. Explain what is meant by the 'limiting positions of equilibrium' of a body resting in contact with rough surfaces.

Two equal uniform rods AC , CB are freely jointed at C , and rest in a vertical plane with the ends A and B in contact with a rough horizontal plane. Show that in limiting equilibrium the angle ABC is $2 \tan^{-1}(2\mu)$.

5. Find the centroid in each of the following cases :—

(1) A semicircular disc, bounded by a diameter OA , the density at any point varying as the distance from O .

(2) An area enclosed by two radii of an ellipse of uniform density.

6. Obtain the equation of the catenary of uniform strength under the action of gravity.

Obtain the expression for the tension at any point of a flexible inextensible string resting on a rough plane curve and subject to no external forces except the pressure of the curve.

GROUP B.

7. Obtain expressions for the accelerations of a moving point along and perpendicular to the radius vector to its path.

A fly crawls at a uniform velocity along the curve $r=a\theta$ traced on a disc. The disc rotates with uniform angular velocity about the origin of coordinates. Find the space accelerations of the fly along the perpendicular to the radius vector at any instant.

8. Give a short account of Galileo's discovery of the First Law of Motion.

Write a short note on the experimental verification of the Laws of Motion.

9. Explain what is meant by *simple harmonic motion*; and give a graphical method of representing the time between any two points of the path.

A heavy particle of mass m is attached to one end of an elastic string of natural length a , whose other end is fixed at O . The particle is let fall from rest at O . Show that part of the motion is simple harmonic, and that, if the greatest depth of the particle below O is $a \cot^2 \frac{1}{2} \phi$, the modulus of elasticity of the string is $\frac{1}{2} mg \tan^2 \theta$, and that the particle attains this depth in time

$$\sqrt{\frac{2a}{g}} \left\{ 1 + (\pi - \theta) \cot \theta \right\},$$

where θ is a positive acute angle.

10. What is the *impulse* of a force, and how is it measured?

A heavy uniform chain hangs vertically from its upper end, with its lower end just above a horizontal table; if it be let go, find the pressure on the table during the fall.

11. Distinguish between *kinetic* energy and *potential* energy, and enunciate the principle of energy.

An inelastic pile of mass m is driven into the ground by a weight of mass M which falls on it. Show that at each blow a proportion $\frac{m}{M+m}$ of the kinetic energy of the moving weight is wasted.

12. A particle of mass m describes a parabola under an attraction to the focus; prove that the attraction at distance r is $m\mu/r^2$, and that the velocity is $(2a/r)^{\frac{1}{2}}$.

Two particles describe in equal times the arc of a parabola bounded by the latus rectum, one under an attraction to the focus, and the other with constant acceleration g parallel to the axis. Show that the acceleration of the first particle at the vertex of the parabola is $\frac{16}{9}g$.

MATHEMATICS

SIXTH HONOURS PAPER.

Examiner—BHUPATIMOHAN SEN, ESQ., M.Sc.

Only FIVE questions to be attempted, not more than three from each group.

The questions are of equal value.

Candidates are required to give their answers in their own words as far as practicable.

GROUP A.

1. Show how to find the vertical and horizontal components of pressure on any surface immersed in a heavy homogeneous liquid.

A hollow sphere is just filled with such a liquid so that the pressure at the highest point vanishes. Find the resultant pressure on the lower hemisphere cut off by any central plane.

Show also that as the plane varies, the locus of the intersection of the line of action of the resultant pressure with that of the weight of the liquid in the lower hemisphere is a hemisphere of radius $\frac{2}{3}$ ths of that of the given sphere.

2. Define "Centre of Buoyancy" and "Metacentre" and indicate the importance of the latter in the theory of stability of floating bodies.

A uniform solid cylinder whose length is twice its diameter floats with its axis vertical in water. Find the limits within which the specific gravity of the material of the cylinder must not lie in order that the equilibrium may be stable.

3. Determine the surfaces of equipressure in a heavy fluid revolving with uniform angular velocity about a vertical axis.

A hemispherical bowl of radius a is full of water which is stirred by the hand till the whole has acquired an angular velocity, ω , about the axis of the hemisphere.

If $\frac{1}{n}$ th of the water flows over, prove that

$$w^2 = \frac{8g}{3an}.$$

4. Prove that $p = \kappa p(1 + \epsilon t)$ for a gas.

If z be the height of a station above the sea-level and if the temperature of the atmosphere fall uniformly with the height ascended, establish that

$$z = a \left\{ 1 - \left(\frac{h}{h_0} \right)^m \right\}$$

where h, h_0 are the readings of the barometer at the station and at sea-level respectively, and a and m are constants which you are required to find.

5. A triangular lamina is immersed in a heavy homogeneous liquid with its plane vertical. Prove that the centre of pressure coincides with the centre of mass of three material particles placed at the midpoints of the sides, whose masses are proportional to the depths of these points.

If the triangle be equilateral and it rotates round its centre of mass in the vertical plane, show that the locus of the C.P. in space is a circle.

6. A cylindrical diving bell of height 10 feet and internal radius 3 feet is immersed in water so that the depth of the top is 100 feet. The temperature of air in the bell is now lowered from 20°C to 15°C . Show that the tension of the chain is increased by about 67 pounds weight, the height of the water barometer being 30 inches.

GROUP B.

7. The latitude of an observer is 45° South. Draw his celestial sphere exhibiting (i) the principal circles of reference, (ii) the position of the ecliptic at 19 hours of sidereal time, and (iii) the sun's daily path at the solstices.

If the mean time of transit of the first point of Aries at a place be 9 hrs. 41' 24", find approximately the time of the year.

8. Define "Apparent solar time," "Mean solar time," "Sidereal time," and "Equation of time."

If M be the sidereal time at mean noon at Greenwich at M_1 the sidereal time at mean noon on the same day at a station of longitude l , West, expressed in hours, prove that

$$M_1 = M + 9.8565'' \times l.$$

On a certain day the sundial is $16' 20''$ before the clock. Given that the Sun rose at 6 hrs. 54', Mean time, find the time of sunset.

9. State Kepler's three laws of motion and Newton's theoretical deductions therefrom.

Prove that, *strictly* according to the law of gravitation,

$$\frac{T^2}{T_1^2} \cdot \frac{S+M}{S+M_1} = \frac{r^3}{r_1^3}$$

where T and T_1 are the periodic times of two planets whose masses are M and M_1 respectively and r and r_1 the radii of their orbits, supposed to be circular round the sun whose mass is S .

How do you reconcile this with Kepler's third law?

10. Give an account of Foucault's pendulum experiment. What does it establish? Find the time of a complete revolution of the plane of vibration of the pendulum at a place of given latitude l .

11. Define "Periodic time" and "Synodic period" of a planet and prove the relation

$$\frac{1}{P} - \frac{1}{E} = \frac{1}{T}.$$

for an inferior planet. The Synodic period of Venus being 584 days, find the angle gained, each minute of time, on the Earth round the sun as centre.

Find the angular velocity with which Venus crosses the Sun's disc, assuming that the distances of Venus and the Earth from the Sun are as 7 : 10.

12. Explain, by means of a diagram, how the time, duration and magnitude of a lunar eclipse can be determined. What are the lunar ecliptic limits, and how are they determined?

MATHEMATICS.

Paper-setters— $\left\{ \begin{array}{l} \text{HON. JUSTICE SIR ASUTOSH MUKERJEE, KT.,} \\ \text{C.S.I., M.A., D.L.} \\ \text{RAI SAHEB ABINASHCHANDRA BASU, M.A.} \\ \text{DR. HARIDAS BAGCHI, M.A., PH.D.} \end{array} \right.$

FIRST PASS PAPER.

Examiners— $\left\{ \begin{array}{l} \text{BABU SATISCHANDRA BASU, M.A.} \\ \text{BABU ASUTOSH CHATTERJEE, M.A.} \\ \text{BARU HARILAL CHAUDHURI, M.A.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Candidates are permitted to attempt TEN questions only.

1. In a plane triangle, prove that 10

$$\text{Area} = \frac{1}{2}bc \sin A = \frac{abc}{R}.$$

Or,

Prove geometrically that

$$\sin 15^\circ = \frac{1}{4}(\sqrt{6} - \sqrt{2}).$$

- 2 Trace the changes in the sign and magnitude of 5, 5

$$(1) \cot x; \quad (2) \sin x + \cos x;$$

as x varies from 0 to 2π .

Or,

Form a general expression for all angles whose sine is given, and find all the values of θ which satisfy

$$\sin^2 \theta = \sin^2 \alpha.$$

3. (1) Solve $\tan^{-1} x + \cot^{-1} x = \frac{\pi}{2}$.

(2) Find the value of $\sin(\sin^{-1} \frac{1}{2} + \cos^{-1} \frac{1}{2})$.

4. Prove the theorem of De Moivre that

$$\cos n\theta + \sqrt{-1} \sin n\theta$$

represents the value of $\{\cos \theta + \sqrt{-1} \sin \theta\}^n$ when n is a positive integer.

Find the three cube roots of unity.

5. Prove the formula

$$\sin n\theta = n \cos^{n-1} \theta \sin \theta - \dots$$

Expand $\sin \theta$ in ascending powers of θ .

6. Establish the series of Gregory

$$\theta = \tan \theta - \frac{1}{3} \tan^3 \theta + \dots$$

Deduce

$$\pi = 4(1 - \frac{1}{3} + \frac{1}{5} - \dots)$$

7. Explain how the position of a point is defined by its Cartesian coordinates.

The coordinates (x, y) of a real point satisfy the single relation

$$x^2 + y^2 - 2x - 4y + 5 = 0.$$

Ascertain the locus of the point.

8. Find the length of the perpendicular drawn from any point (h, k) on the line

$$x \cos \alpha + y \sin \alpha = p.$$

Determine a point equally distant from the three lines

$$x \cos 31^\circ + y \sin 31^\circ = 2,$$

$$x \cos 45^\circ + y \sin 45^\circ = 2,$$

$$x \cos 60^\circ + y \sin 60^\circ = 2.$$

9. Prove that $x^2 + 2hxy - y^2 = 0$ represents a pair of straight lines at right angles to each other.

10. Find the centre and radius of the circle

$$x^2 + y^2 + 2gx + 2fy + c = 0.$$

Prove that the radii of the circles

$$x^2 + y^2 = 1,$$

$$x^2 + y^2 - 2x - 6y = 6,$$

$$x^2 + y^2 - 4x - 12y = 9,$$

are in arithmetical progression.

11. Prove that $x=7$ and $y=8$ both touch the circle 6

$$x^2 + y^2 - 4x - 6y = 12.$$

Find the points of contact. 4

12. Obtain the equation of a parabola in the form 6

$$y^2 = 4ax.$$

Prove that $y = 2x + \frac{a}{2}$ is a tangent. 4

13. Form the equation of the polar of the point (x_1, y_1) with regard to 6

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1.$$

Prove that the polars of any point with regard to 4

$$\frac{x^2}{3} + \frac{y^2}{5} = 1 \text{ and } \frac{x^2}{3} + \frac{y^2}{5} = 2$$

are parallel.

14. Prove that the sum of the squares of the reciprocals of two perpendicular diameters of an ellipse is constant. 10

15. Prove that 6

$$\frac{x}{a} \cos \frac{a+\beta}{2} + \frac{y}{b} \sin \frac{a+\beta}{2} = \cos \frac{a-\beta}{2}$$

is the chord through the points

$$(a \cos \alpha, b \sin \alpha), (a \cos \beta, b \sin \beta)$$

on the ellipse

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1.$$

Show that the chord will be parallel to the x -axis, if $(a+\beta)$ is an odd multiple of π . 4

16. Give a neat sketch of the hyperbola 6

$$x^2 - y^2 = 4.$$

Prove that the origin bisects every chord of this hyperbola which passes through it. 4

MATHEMATICS.

SECOND PASS PAPER.

Examiners— $\left\{ \begin{array}{l} \text{BABU RAICHARAN BISWAS, M.A.} \\ \text{MR. J. M. BOSE.} \\ \text{BABU INDUBHUSHAN BRAHMACHARI, M.A.} \end{array} \right.$

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Candidates are permitted to attempt TEN questions only.

1. Find, from first principles, the differential coefficient of x^2 or of $\sin x$. 5

Find $\frac{dy}{dx}$, when $y = \sin (\log x)$. 5

2. If $y = a \cos nx + b \sin nx$, prove that $\frac{d^2y}{dx^2} + n^2y = 0$. 10

3. Expand $\log (1+x)$ or $\tan^{-1} x$ in a series of ascending powers of x . 10

4. OA, OP are radii of a circle of centre O . The angle AOP is a small quantity of the first order. Prove that (arc AP - chord AP) is of the third order. 10

5. Evaluate :

$$(1) \frac{1 - \cos \theta}{\theta^2}, \text{ when } \theta = 0 : 5$$

$$(2) \frac{a - \sqrt{a^2 - x^2}}{x^2}, \text{ when } x = 0. 5$$

6. Prove that the minimum value of $x^2 - 4x + 9$ is 5. 10

Or,

Prove that the maximum value of $a \sin \theta + b \cos \theta$ is

$$\sqrt{a^2 + b^2}.$$

7. In the parabola $y^2 = 4ax$, prove that 10

$$\frac{ds}{dx} = \sqrt{1 + \frac{a}{x}}.$$

8. Form the pedal equation of 10

$$r^m = a^m \sin m\theta$$

in the shape

$$\frac{p}{a} = \left(\frac{r}{a} \right)^{m+1}.$$

9. Prove that the radius of curvature in 10

$$y = \log \sin x \text{ is } \rho = \operatorname{cosec} x.$$

Prove that

$$\rho = r \frac{dr}{dp}.$$

10. Prove, from first principles, that

10

$$\int_a^b \sin x \cdot dx = \cos a - \cos b.$$

11. Integrate:

5, 5

$$(1) \int \frac{dx}{x^2 + 8x + 15}; \quad (2) \int x \cos nx \, dx.$$

12. Integrate:

5, 5

$$(1) \int \sqrt{a^2 - x^2} \, dx; \quad (2) \int \frac{dx}{3 + 2 \cos x}.$$

13. Prove that the perimeter of the cardioid

10

$$r = a(1 - \cos \theta) \text{ is } 8a.$$

14. Obtain the area of the semicircle bounded by $r = a \cos \theta$ and the initial line. 10

15. Integrate

10

$$xy \frac{dy}{dx} = \frac{x^2 + 1}{y + 1}.$$

Or,

$$x \frac{dy}{dx} + y = x^3.$$

16. Integrate

10

$$(x^2 + y^2) \frac{dy}{dx} = xy$$

by the transformation $y = vx$, or otherwise.

Or,

Integrate

$$\frac{d^2y}{dx^2} - 3 \frac{dy}{dx} + 2y = 0.$$

MATHEMATICS.

THIRD PASS PAPER.

Examiners— { BABU RAJANIKANTA BARAT, M.A.
 { MR. J. W. BOTTOMLEY, M.A.
 { BABU SARADAPRASANNA DAS, M.A.

Only NINE questions are to be attempted ; but not more than six from any one group.

The questions are of equal value.

Candidates are required to give their answers in their own words as far as practicable.

GROUP A.

1. Prove the formula $p = g\rho h$, explaining the notation.
2. The lower ends of two vertical tubes, whose cross-sections are 1 and $\frac{1}{10}$ th square inches respectively, are connected by a tube. The tubes contain mercury (sp. gr. 13.6). How much water must be poured into the larger tube so as to raise the level of the mercury in the smaller tube by one inch?
3. Establish $P = wSz$, for a plane surface immersed in a heavy homogeneous liquid at rest, not exposed to the atmosphere, P being the whole pressure on the area S and Z the depth of the C.G. of the area below the surface.
4. ABC is a triangular area immersed vertically in water with C in the surface and AB horizontal. Show how to divide the area by a horizontal line PQ into two portions on which the pressures are equal, P and Q being points in AC and BC respectively.
5. Define Centre of Pressure.
If a vertical lamina immersed in water descends vertically, does the C.P. approach or recede from the C.G. of the lamina? Give reasons for your answer.
6. Find the depth of the C.P. of a uniform rectangular lamina immersed in water with its plane vertical and one side in the surface.
7. Establish the conditions of equilibrium of a body freely floating in a liquid at rest.
8. Show that a homogeneous solid in the shape of a right circular cone, can float in a liquid of twice its density with its axis horizontal.
9. State Boyle's Law and deduce from it $p = k\rho$, explaining the notation.
10. Describe the use of the Hydrostatic balance in finding the specific gravity of a body which would sink in water.

GROUP B.

11. Draw the celestial sphere for an observer in 25° Lat. North and indicate on it—the Azimuth, Hour-angle, Right ascension, Declination, Latitude and Longitude, of a star.
12. When the first point of Aries is rising on the eastern horizon of an observer in 25° Lat. North, find the inclination of the ecliptic to the horizon.

13. Define "Sidereal year," "Tropical year," "Sidereal day" and "Mean solar day."

Prove that
one mean solar day = one day plus four minutes minus four seconds, of sidereal time, approximately.

14. Given that the first point of Aries has an annual retrograde motion of $50.22''$ along the ecliptic among the stars and the Tropical year consists of $365\frac{1}{4}$ mean solar days, find the number of mean solar days in a sidereal year.

15. Prove that refraction is $k \tan z$ approximately. Within what limit of the zenith distance has this law been found to be nearly true?

16. Find the latitude of a place at which the upper and lower meridian altitudes of a circumpolar star are 30° and 60° respectively, the refraction for the zenith distance of 45° being $57''$.

17. Show how the horizontal parallax of the Moon can be found by two simultaneous observations of the Moon, from stations on nearly the same meridian.

18. It is observed that the same face of the Moon approximately is always turned towards the Earth, in her orbital revolution round the Earth. What are the deductions made from this observation?

19. Explain the Moon's Librations.

20. Explain what is meant by the Annual Parallax and Annual Aberration of a Star.

PHYSICS.

<i>Paper-setters—</i> <i>(Pass and Honours).</i>	{	DR. P. J. BRÜHL I.S.O., D.Sc., F.C.S.,
		F.G.S.
		A. MACDONALD, Esq., M.A.
		DR. D. N. MALLIK, Sc.D., F.R.S.E.
		RAI B. N. DAS BAHADUR, M.A., B.Sc.
		BABU TULSIDAS KAR, M.A.

FIRST HONOURS PAPER.

Examiner—BABU RAMENDRASUNDAR TRIVEDI, M.A.

Only six questions to be attempted.

The questions carry equal marks.

1. A particle is acted upon by two forces at right angles to each other, directed to a fixed point and proportional to its displacements from that point in the directions of the forces. Find the conditions that the path should be a straight line, a circle and an ellipse.

2. Give a brief account of the experiments (with the necessary theory) that have been carried out for determining the mean density of the earth.

3. Define modulus of elasticity and coefficient of rigidity
Find the period of the torsional oscillation of a sphere suspended by a wire.

4. Define coefficient of viscosity and explain the theory of a method by which the coefficient of viscosity of a given liquid can be determined.

Indicate the effect of temperature.

5. Show that the energy of a spherical soap bubble is equal to

$$tS + p_0 v_0 \log \frac{v_0}{v} - p_0(v_0 - v)$$

where p_0 = atmospheric pressure, v_0 the volume that the contained air occupies at p_0 , t the surface tension, and S the surface of the sphere.

6. Prove that the velocity of sound in a gas is $\sqrt{r \frac{p}{\rho}}$, where p is the

pressure of the gas, ρ its density, and r a constant

Explain how this constant can be determined experimentally.

7. Discuss the nature of beats and their relation to musical harmony.

Illustrate your meaning by taking the notes C and D.

8. Explain carefully the meaning of quality of a musical note. How does it differ from pitch? Give an account of a method of analysis of a note in order to determine its quality.

9. Write notes on

(1) Lissajou's figures.

(2) Difference tones.

10. A vibrating tuning fork is held at the mouth of an open jar and water poured into it till the jar speaks.

Explain the phenomenon, as completely as you can, and discuss it mathematically, as far as possible.

PHYSICS.

SECOND HONOURS PAPER.

Examiner—RAI KUMUDINIKANTA BANERJEE, BAHADUR. M.A.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Only SIX questions to be attempted, THREE from group A and THREE from group B.

GROUP A.

1. Describe Regnault's method of finding the coefficient of increase of pressure of a gas. How is the idea of absolute temperature derived from the constancy of the coefficient?

Discuss the accuracy of the following statement:—

“Volume being kept constant, the pressure at -273°C of the given mass of a gas, which truly obeys Boyle's and Charles' laws, is reduced to zero.

2. Describe Victor Meyer's method of finding the density of an unsaturated vapour. Compare this method with that of Dumas.

3. Indicate clearly how the mass of 1 litre of air inside a laboratory can be experimentally determined.

Calculate the mass of 100 litres of moist air from the following data:—

Barometric height	≈ 760.56 mm.
Temperature of the barometer	$= 31^\circ\text{C}.$
Temperature of the air	$= 30^\circ\text{C}.$
Dew Point	$= 24^\circ\text{C}.$
Coefficient of cubical expansion of mercury	$= 0.000181$
Coefficient of linear expansion of the brass scale of the barometer	$= 0.000019$

Value of ' g ' for the place $= 980.61 (1 - 0.0019) \frac{\text{cm}}{\text{sec}^2}$.

Maximum vapour pressure at $24^\circ\text{C} = 22.15$ mm.

Density of dry air at N.T.P. $= 0.001293$ gramme.

Density of aqueous vapour $= 0.62$.

4. Classify hygrometers and explain the principle and the method of finding humidity by Daniell's Hygrometer. What are the different sources of error in this method? How are they eliminated in other improved types of hygrometers?

GROUP B.

5. Define Thermal and Thermometric conductivity.

Describe any method used for accurately determining the thermal conductivity of a metal.

6. Deduce Boyle's Law and Graham's Law of Diffusion from the Kinetic Theory of Gases.

7. Distinguish clearly between a reversible and an irreversible operation. Give examples.

Prove that the efficiency of all reversible engines is a maximum when working between the same source and the same refrigerator.

8. Prove the thermodynamic relation

$$\left(\frac{dp}{d\theta}\right)_r = \left(\frac{d\phi}{dv}\right)_\theta.$$

where p denotes pressure,

v „ volume,

θ „ absolute temperature,

and ϕ „ entropy.

Apply the given relation to obtain an expression for the lowering of the melting point of ice for a variation in the pressure to which ice is subjected.

9. State and discuss fully the theory of dissipation of energy, clearly showing its consistency with the law of conservation of energy, and incidentally considering the Thermodynamic Motivity of a system.

PHYSICS.

THIRD HONOURS PAPER.

Examiner—D. B. MEEK, ESQ., M.A., B.Sc.

Answer FIVE questions, of which at least two must be from either Group A or B.

The questions are of equal numerical value.

GROUP A.

1. Discuss the distortion of images produced by convergent lenses and the means of minimising such distortion.
2. Find the condition that the combination of two lenses of different mean focal lengths, separated by a certain distance, shall be equivalent, for two rays of different refrangibility, to a single lens with equivalent focal lengths.
3. What methods are employed to investigate the ultra-red and the ultra-violet portion of the spectrum of a source of light?
4. Explain the following terms:—Purkinje's Figures, Irradiation, Rods and Cones, Blind spot, Astigmatic.
5. Prove that for an eye-piece to be achromatic in a restricted sense of the word, red and blue rays, initially parallel to the axis, must be equally deviated.

GROUP B.

6. Explain, as fully as you can, the production of colours by a film of oil floating on a surface of stagnant water.
7. How are X-rays produced, and what are their properties?
8. What is a "grating"? Investigate the effect produced by a grating on a beam of light passing through it.
9. Indicate the various ways in which ordinary light may be converted into polarised light.
10. How do you produce, and test for, circularly polarised light?

PHYSICS.

FOURTH HONOURS PAPER.

Examiner—DR. D. N. MALLIK, B.A., SC.D., F.R.S.E.

Only SIX questions to be attempted.

The questions carry equal marks.

1. Define electric intensity at any point in an electric field and find its value at a point just outside a charged sphere.
If the dielectric surrounding the sphere is changed, how does the electric intensity change?
2. Find the capacity of a condenser consisting of two coaxial cylinders.

cases where the phases differ by 0 , $\frac{\pi}{2}$, π , and $\frac{3\pi}{2}$ respectively, and the amplitudes are (a) equal, and (b) unequal. Illustrate your answer with neat pencil sketches on squared paper.

2. Prove the following theorems:—

16

(a) The total normal induction over a closed surface is equal to 4π times the charge inside the surface;

(b) a charged sphere acts on external points as though the whole charge were concentrated at the centre.

3. Obtain a formula for the determination of the surface tension of a liquid by observing the height of the liquid in capillary tubes. Describe how you would determine surface tension experimentally. Calculate the capillary constant of distilled water from the following data:—

16

<i>Tube.</i>	<i>Radius.</i>	<i>Height.</i>
No. 1	0.0178 cm.	8.12 cm.
„ 2	0.0264 „	5.57 „
„ 3	0.0420 „	3.43 „

The density of water is taken as unity.

GROUP II.

4. Describe in detail how you would determine the coefficient of expansion of the glass of which a bulb tube (of uniform bore) is made.

16

A glass bulb with uniform fine stem weighs 10 grammes, when empty, 117.3 grammes when the bulb only is full of mercury, and 119.7 grammes when a length of 10.4 cm. of the stem is also filled with mercury. Calculate the relative coefficient of expansion of a liquid, which, when placed in the same bulb, expands in length from 10.4 to 12.9 cm. of the stem when warmed from 0° to 28°C . The density of mercury is 13.6 grammes per c.c.

5. Define the term vapour density, and describe the method devised by Dumas for determining it.

16

Calculate the vapour density of a substance from the following data:—

The bulb used weighed 14.940 grammes when full of air, 15.401 when filled with the vapour, and 175.103 when filled with water after the experiment. Temperature of the laboratory = 20°C .; temperature of the bath at the time of sealing the bulb 100.16°C .; barometer at the time of the experiment = 764.3 mm. The density of water may be taken as unity, and the expansion of glass may be neglected.

6. Give an account of the experiment made to test the accuracy of Boyle's law at high pressures. Mention the results obtained, and represent them graphically.

16

GROUP III.

7. A luminous point is placed between two plane mirrors inclined to each other at an angle ϵ ; find the number of images.

8. Classify the different kinds of telescopes. Give short descriptions, and point out the relative advantages and disadvantages of each. Draw a neat pencil sketch of the path of rays through an astronomical refractory telescope.

9. State the fundamental assumptions made by Huyghens with regard to the wave theory of light. Explain the phenomenon of refraction, and deduce Snell's law with the help of this theory.

PHYSICS.

SECOND PASS PAPER.

Examiners— { RAI KUMUDINIKANTA BANERJEE, BAHADUR,
M.A.
BABU RAMENDRANATH GHOSH, M.A.

Candidates are required to give their answers in their own words as far as practicable.

**The questions are of equal value.*

Only six questions to be attempted.

1. State how Newton tried to explain the discrepancy between the velocity of sound as determined by experiment and as determined from his expression $V = \sqrt{P/\rho}$.

What was Laplace's correction ?

Determine the velocity of sound at N.T.P., and deduce the change in velocity per centigrade degree rise in temperature if $\alpha = 0.00367$.

2. Give a brief account of Kundt's experiment. If the length of the rod is 1 metre, the density of the material 8 grams per c.c., and its Young's Modulus 7.2×10^3 grams per sq. cm., find the distance between the heaps in the Kundt's tube when it is filled with CO_2 at 25°C .

$$\left[\text{Velocity of sound in } \text{CO}_2 \text{ at } t^\circ\text{C} = 260 + 0.478 t \left(\frac{\text{metres}}{\text{sec}} \right) \right]$$

3. Describe accurately how you can determine the velocity of sound along a stretched wire in the laboratory.

4. Define magnetic force, magnetic induction, and magnetic permeability. Explain what is meant by the term hysteresis, using a typical curve for soft iron wire to illustrate it. Describe a method of drawing the lines of force due to a bar magnet.

5. Describe how you would determine the horizontal component of the Earth's magnetic field.

6. What is a condenser ? Why is it so called ? Find an expression for the capacity of a spherical condenser, and deduce from that expression the capacity per unit area of a plate condenser.

7. Describe some form of Quadrant Electrometer, and explain how it is to be adjusted. Prove the formula to be used for E.M.F. measurement.

8. State Kirchhoff's laws about the distribution of current in a network of conductors.

The positive and negative poles of a battery of 2 Grove cells are connected respectively to the positive and negative poles of a battery of 2 Daniell cells, by wires of resistances 10 and 6 ohms. The middle points of the wires are connected by another wire of resistance 4 ohms. Calculate the current flowing through each of the batteries.

E.M.F. of a Grove cell = 1.9 volts.

E.M.F. of a Daniell cell = 1.1 volts.

Int. Resistance of a Grove cell = 1 ohm.

Int. Resistance of a Daniell cell = 2 ohms.

9. Find the equivalent resistance of two resistances connected in parallel.

The terminals of a galvanometer of resistance 800 ohms, shunted with a resistance of 100 ohms, are connected through a resistance of 2,000 ohms to the poles of a cell of E.M.F. 2 volts. Calculate the current flowing through the galvanometer.

10. State Faraday's Laws of Electrolysis, and show how with a hydrogen, a copper, and a silver voltameter the laws can be verified.

11. Give a sectional diagram and a brief description of Ruhmkorff's Induction coil, and explain the action.

What is the action of the condenser ?

Why is the core laminated ?

PRACTICAL PHYSICS.

PASS PAPER.

Convener—BABU RAMENDRASUNDAR TRIVEDI, M.A.

<i>Examiners</i> —	{	PRESIDENCY COLLEGE CENTRE.
		BABU HRIDAYCHANDRA BANERJEE, M.A.
		MR. B. C. GHOSH, M.A., M.B., B.C.
		SCOTTISH CHURCHES COLLEGE CENTRE.
		BABU SARATCHANDRA MAJUMDAR, M.A.
		BABU DWIJENDRAKUMAR MAJUMDAR, M.A.
		ST. XAVIER'S COLLEGE CENTRE.
		REV. FATHER A. BRIOT, S.J.
		BABU TULSIDAS KAR, M.A.
		DACCA COLLEGE CENTRE
		MR. W. A. JENKINS, M.Sc.
		BABU TARAPADA MUKERJEE, M.A.
		GAUHATI COLLEGE CENTRE.
		MR. D. E. ROBERTS, M.Sc.
		BABU KAMADACHARAN CHAKRABARTI, M.A.
		RAJSHAHI COLLEGE CENTRE.
		MR. BAMACHARAN BHATTACHARYYA, M.A.
		MR. SURENDRANATH MAITRA, M.A., M.R.C.S.
		RANGOON COLLEGE CENTRE.
		MR. R. M. WARD, B.A.
		MR. N. C. K. AIYER, M.A.
		PATNA COLLEGE CENTRE.
		MR. A. T. MUKERJEE, M.A.
		BABU PURNACHANDRA BHATTACHARYYA, M.A.

The Examinations last for six hours (11 A.M. to 5 P.M.)

Two questions, the total value of which is 80, are to be given out by lottery.

The figures in the margin indicate full marks.

1. Find the average cross section of the given wire by the hydrostatic balance, making correction for the temperature of water. Check the result by the screw gauge. 40
2. Determine, by the hydrostatic balance, the lengths of the constituents of the given sample of twisted wire. Samples of wires are provided. 45
3. Determine the ratio of the arms of the given balance. 35

4. Determine the periods for different lengths of a simple pendulum. Draw the L.T. graph and find, from the graph, the length of the pendulum whose period is 1 second. 45
5. Find accurately Young's Modulus for the given wire. 40
6. Find the density of the given salt solution, by the hydrostatic balance method, making correction for the temperature of water. 45
7. Find, by the hydrostatic balance, the specific gravity of the given solid, soluble in water, making correction for the temperature of water. 45
8. Find accurately the volume per gram of the given powder. 40
9. Determine, by the resonance column method, the velocity of sound in air at O. C. eliminating the end effect. 40
10. Find the ratio of the frequencies of the two given tuning forks by the resonance column method, correcting for the end effect. 35
11. Prove the laws of length and tension in the case of a vibrating string. 40
12. Determine, by the sonometer, the frequency of the given tuning fork. 45
13. Measure, with travelling microscopes, the mean coefficient of expansion of the given rod or tube, between the room temperature and that of boiling water. 40
14. Verify Boyle's law for air, for pressures above and below the atmospheric pressure. Draw $Pv-P$ curve. 40
15. Establish the relation between the pressure and temperature of a mass air at constant volume. Draw the graph and calculate the pressure coefficient. 40
16. Establish the relation between the volume and temperature of a mass of air at constant pressure. Draw the graph and calculate the coefficient of expansion. 40
17. Find the specific heat of the given solid (glass or marble) by the method of mixture, making correction for radiation. 40
18. Find, by the method of mixture the specific heat of the given liquid (kerosine oil), using copper as a substance of known specific heat, making correction for radiation. 40
19. Find, by the method of mixture the latent heat of fusion of ice, correcting for radiation. 40
20. Find, by the Regnault's or Daniell's hygrometer, the humidity of the air in the laboratory. Check the result by the dry and wet bulb thermometers. 40
21. Measuring the focal length and the curvatures of the two surfaces of the given double convex lens, calculate the refractive index of its material. 40
22. Given a pin, a telescope, a scale and a spherometer, determine the refractive index of the material of a lens. 40
23. Find by two different methods the focal length of the given convex lens. 40
24. Find the focal length of the given concave lens, using an auxiliary convex lens. 40
25. Determine the magnifying power of the given telescope for infinity. 40
26. Determine the refractive index of the given liquid by the microscope. 35
27. Determine, by the spectrometer, the refractive index for sodium light of the material of the given prism. 45
28. Compare the magnetic moments of the two given magnets by the deflection method. 35
29. Find, with a copper voltameter, the reduction factor of the given tangent galvanometer. 40

30. Check any one reading of the given ammeter by the copper 35
voltmeter.

31. Level the given galvanometer and properly adjust the lamp 40
and scale. Measure the resistance of the given coil by P.O. Box.

32. Verify, with a P.O. Box, the relation, 40

$$\frac{1}{R} = \frac{1}{r_1} + \frac{1}{r_2}.$$

33. Find, by the metre bridge, the specific resistance of the mate- 45
rial of the given wire.

34. Compare the E.M.F.'s of the two given cells by the poten- 40
tiometer.

PRACTICAL PHYSICS.

HONOURS PAPER.

1. Find how the surface tension of the given liquid will vary with concentration, the liquid being given in three different concentrations.

2. Find the vapour density of the given liquid by Dumas' method.

3. Find the vapour density of the given liquid by Victor Meyer's method.

4. Calibrate the given thermometer tube and determine the mean internal cross section.

5. Find the densities of water at different temperatures by a weighted bulb. Draw the graph and calculate the average coefficient of expansion of water.

6. Find by the method of mixture the change in the specific heat of water by the addition of a known proportion of salt.

7. Find the change in the specific heat of the given liquid with temperature by Joule's calorimeter.

8. Compare the velocity of sound in air to that in CO_2 by Kundt's tube.

9. Find by the spectrometer the variation of the angle of deviation of a ray through a prism with the angle of incidence. Represent the result graphically and calculate the refractive index of the material of the prism.

10. Find the constant of the given grating with a known wave-length.

11. Calibrate the given spectroscope for wave-length measurement using the given salts or the given vacuum tube. (Salts:—Sodium, potassium, lithium, and calcium. Vacuum tube:—Hydrogen or Helium).

12. Find the variation of the refractive index of the salt solution of different concentrations by the hollow prism method.

13. Find "H" by the reflecting magnetometer.

14. Find "H" by the tangent galvanometer.

15. Calibrate the wire of the given metre-bridge by Carey-Foster's method.

16. Find the temperature coefficient of the resistance of the given wire with the metre-bridge, taking all possible precautions.

17. Find the temperature coefficient of the given wire by a potentiometer method.

18. Find the variation of resistance with concentration of the solution of the given salt by Kohlrausch's method. Plot the result graphically.

19. Find the value of J by the electric Calorimeter, measuring the current by a copper voltmeter and making correction for radiation.

20. Determine the variation of E.M.F. of an iron-copper couple with temperature, between 0°C and 100°C . Plot a curve and hence determine the coefficient of increase of E.M.F. for the same range.

21. Find the boiling point or the melting point by the thermo-couple.

22. Construct one one-ohm coil and compare it with a standard one-ohm coil by Carey-Foster's method.

CHEMISTRY.

RAI CHUNILAL BASU, BAHADUR, I.S.O.,
M.B., F.C.S.

JATINDRANATH SEN, ESQ., M.A.

R. N. SEN, ESQ., M.Sc.

Paper-setters— { REV. DR. J. WATT, D.D.
(*Pass and Honours*). | DR. P. C. MITTER, M.A., Ph.D.

DR. ANUKULCHANDRA SARKAR, M.A.,
Ph.D.

ABHU RAMENDRASUNDAR TRIBEDI, M.A.

FIRST HONOURS PAPER.

Examiner—DR. PANCHANAN NEOGI, M.A., Ph.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Not more than FIVE questions to be attempted.

1. How can tartaric acid be synthesized? In what way does the acid so prepared differ from the tartaric acid occurring in nature? How would you account for this difference? 20

2. What are 'amines', and in what respects do they resemble ammonia? Classify them, and describe the preparation (in the pure state) of a typical member of each class. Give a method for distinguishing the different classes of amines. 20

3. Explain by examples the difference in the properties of organic compounds due to the difference in the position of substituting groups in the molecule. 20

4. Explain clearly what is meant by 'dynamic isomerism.' Describe the various methods that are available for determining the structure of dynamic isomers. 20

5. Illustrate and explain the uses of the following metals (or their chlorides) for organic syntheses:—sodium, aluminium, copper, and tin. 20

6. How are the following compounds prepared, and what are their uses:—(a) phenyl-hydrazine, (b) phenacetin, (c) phenolphthalein, (d) acetic acid? 20

7. Describe the preparation of phenol on a commercial scale. 30
What is the action of the following reagents on phenol:—(a) bromine, (b) phosphorus pentachloride, (c) nitric acid, and (d) acetyl chloride?

State how you would ascertain the number of hydroxyl groups in an unknown polyhydric phenol.

CHEMISTRY.

SECOND HONOURS PAPER.

Examiner—DR. K. S. CALDWELL, B.Sc., Ph.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Not more than FIVE questions to be attempted.

1. Give a short history of the discovery of the rarer gases in the atmosphere, taking argon and helium as examples. How are they prepared and identified? Explain the difficulties in separating out these gases. 20

2. How is ozone prepared? Give its properties and uses. How would you distinguish it from other oxidizing substances? How is its constitution determined? 20

3. Give a short account of the manufacture of sodium carbonate, and discuss the merits and demerits of the various processes used. 20

4. Compare the chemical behaviour of the compounds of aluminium with that of the compounds of its immediate neighbours in the Periodic System. 20

5. Describe the preparation of fluorine, noting especially the significance of the different parts of the apparatus used, and the difficulties that have to be overcome. State its properties. 20

6. How is copper obtained from the poorer ores? Mention its chief alloys, and give their composition. 20

7. A mixture of barium monoxide and barium peroxide contained 88.0 per cent. of barium. What was the percentage composition of the mixture? What would be the error in the calculated percentages if there were an error (a) of +1, (d) of +0.1, in the percentage of barium? Ba 137. 20

CHEMISTRY.

THIRD HONOURS PAPER.

Examiner—DR. P. C. ROY, C.I.E., D.Sc., Ph.D., F.C.S.

Candidates are required to give their answers in their own words as far as practicable.

Only SIX questions are to be attempted. The same value is attached to each question.

1. Trace the successive steps in the process of reasoning that has led to the acceptance of the molecular formulæ of hydrogen and water as H_2 and H_2O , clearly distinguishing between facts and hypotheses on which the reasoning is based.
2. Indicate clearly the assumptions that constitute the Atomic Hypothesis, pointing out the utility of each assumption in explaining chemical laws. Discuss briefly how it requires modification in the light of the recently discovered facts relating to radio-activity.
3. Describe fully one method of determining osmotic pressure of solutions. State the laws of osmotic pressure. Mention cases of anomalous osmotic pressure, and attempt an explanation of the anomaly.
4. State the laws of electrolysis. Give a short account of Arrhenius's theory of electrolysis, and explain the decomposition of acidulated water in accordance with the theory.
5. What are reversible chemical actions? Give typical examples. Give a general explanation of reversible chemical actions according to the kinetic theory.
6. What are the conditions of chemical equilibrium between two chemical compounds reacting in solution? How is the equilibrium affected when one of the products is removed partially from the solution? Illustrate by typical examples.
7. Explain the following, with examples in illustration:—
 - (a) velocity of reaction;
 - (b) molecular concentration;
 - (c) valency of a radical;
 - (d) hydrolysis.
8. What is the periodic scheme of classification of elements, and what are its merits? How does the position of an element in the scheme assist in fixing its atomic weight? How has the scheme helped in the discovery of new elements?

CHEMISTRY.

FOURTH HONOURS PAPER.

Examiner—DR. D. THOMSON, M.A., B.Sc., PH.D

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Not more than FIVE questions to be attempted.

1. Explain the principles involved in the various methods used for determining molecular weights, and state which of them would be applied to the following substances:—(a) sulphur dioxide; (b) ethyl acetate; (c) benzoic acid; (d) aniline; (e) cane-sugar. 20

2. How would you detect a bromide in the presence of a chloride? 20
0.418 grm. of a mixture of AgCl and AgBr was heated in a stream of Cl gas until decomposition was complete, the final weight being 0.342 grm.; calculate the percentage of AgBr originally present.

(Ag = 107.9, Cl = 35.5, Br = 80.)

3. Briefly describe the preparation of any four compounds by the application of electricity, explaining in each case the part played by the electricity. 20

4. What is a catalytic action? Give five instances of catalytic actions, suggesting, if possible, some explanation of the action of the catalyst in each case. 20

5. State briefly the usual methods of preparation, and give the formulæ and chief uses of—sodium peroxide, potassium persulphate, glycerine, and saccharin. 20

6. Briefly describe the manufacture of any two of the following—(a) sulphuric acid; (b) bleaching powder; (c) alcohol; (d) alizarine. 20

7. Starting from common salt, indicate briefly how you would prepare the following by purely chemical methods:—(a) chlorine; (b) soda ash; (c) caustic soda; (d) sodium hypochlorite; (e) sodium chlorate. 20

CHEMISTRY.

FIRST PASS PAPER.

Examiners— { RAI B. N. DAS, BAHADUR, M.A., B.SC.
 { BABU KALIDAS MALLIK, M.A.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

*Only SIX questions, of which the SECOND question must be one,
 are to be attempted.*

1. 0.37 gramme of a substance containing carbon, hydrogen, and 61
 oxygen gave on combustion 0.66 gramme of carbon dioxide and 0.27
 gramme of water. Further, 0.123 gramme of the substance displaced
 40.0 c.c. of moist air at 17° C. and 764 mm. barometric pressure,
 using the Victor Meyer apparatus. Ascertain the molecular formula
 of the substance.

[Tension of aqueous vapour at 17° C. = 14 mm.]

2. Explain the connexion between Gay-Lussac's law about combin- 20
 ing volumes of gases and Avogadro's hypothesis regarding the con-
 stitution of gases. State briefly the reasons which lead you to the
 conclusion that the molecule of hydrogen contains two atoms.

3. Explain and illustrate by examples the meaning of the following 16
 terms:—(a) electrolytic dissociation, (b) catalysis, (c) orientation,
 and (d) reversible reaction.

4. Describe the preparation of ethyl iodide from ethyl alcohol. 16
 How can (a) ethyl ether and (b) ethylamine be obtained from this
 iodide?

5. How is acetone prepared on a commercial scale? Describe its 16
 properties, specially referring to the general reactions which charac-
 terize ketones.

6. How is benzaldehyde prepared on a large scale? Describe its 16
 chief chemical and physical properties and its uses. What happens
 when benzaldehyde is left exposed to the air?

7. How are dextrose and laevulose prepared? Compare their 16
 properties with those of cane sugar. How is glucose usually estimated?

8. How would you prepare aniline in the laboratory? Sketch the 16
 apparatus you would use for this purpose. Describe the physical
 and chemical properties of aniline. How would you test for it?

CHEMISTRY.

SECOND PASS PAPER.

Examiners— { RABU CHUNILAL DE, M.A.
 { RAI CHUNILAL BOSE, BAHADUR, M.B., F.C.S.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

*Not more than SIX questions are to be answered, of which the FIRST
 must be one.*

1. Give a sketch of Victor Meyer's apparatus for the determination 20
 of the vapour density of a substance, and describe the method.

0.0623 gramme of a substance gave by Victor Meyer's method 31.5 c.c.
 of air measured at 15°C. and 750 mm. Find the molecular weight of
 the substance.

[The tension of aqueous vapour at 15°C. = 12.7 mm.]

2. Describe the preparation and properties of the chief halogen 16
 compounds of nitrogen. Give their formulae.

3. Write what you know of the discovery, preparation, and pro- 16
 perties of argon. Discuss its position on the periodic table.

4. What are endothermic and exothermic reactions? Give two 16
 examples of each.

State fully the action of heat on the following substances:—

(a) ammonium chloride;

(b) calcium carbonate;

(c) phosphorus pentachloride.

5. How is potassium cyanide ordinarily prepared? Give the 16
 equation of the chemical reaction involved in the process. Describe
 the properties of, and tests for, the compound, and mention its chief
 laboratory and industrial uses.

6. Mention any two varieties of glass, and show how they differ 16
 in their composition and properties. Describe briefly the manu-
 facture of any one kind of glass, and state how coloured glasses may be
 obtained.

7. How does aluminium occur in nature? Describe the modern 16
 method of extraction of the metal.

Name the most important compounds of aluminium, and state
 their uses.

8. Name the chief ores of lead, and state how the metal is extract- 16
 ed from it, giving equations of the chemical reactions involved in the
 process.

Enumerate the important properties and uses of lead.

GEOLOGY.

Paper-setters { C. S. MIDDLEMISS, Esq., B.A., F.G.S.
 (Pass and { E. VREDENBURG, Esq., B.Sc., F.G.S.
Honours).— { L. L. FERMOR, Esq., D.Sc., F.G.S.

FIRST HONOURS PAPER.

Examiner—E. VREDENBURG, B.Sc., F.G.S.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The questions are of equal value.

Only FIVE questions to be attempted.

1. Describe the orthorhombic and monoclinic systems with reference to the relative lengths and inclination of the crystallographic axes, and tabulate the chief 'forms' in each of these systems.

2. Define the terms:—streak, pleochroism, optical anomaly, extinction angle, albite twinning, refractive index.

3. Mention the chief species of the mica group. Describe the principal occurrences of muscovite in India, and the economic uses to which the mineral is put.

4. What is petroleum, and under what conditions is it found in India?

5. Give the chemical formulæ or general chemical composition, crystal system, and other physical characteristics of the following minerals:—orthoclase, nepheline, augite, glaucophane, chromite, braunite, wolfram, pyrite.

6. Mention any minerals of economic importance commonly found associated with peridotite masses, giving any instances of which you may know.

7. Give a short account of the mineral forms assumed by silica.

8. What is the average composition of the chief Indian coals, and what are their qualities as fuel?

GEOLOGY.

SECOND HONOURS PAPER.

Examiner—BABU HEMCHANDRA DAS GUPTA, M.A., F.G.S.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

SIX questions only may be attempted, of which No. 8 must be one.

1. Write an account of the rocks of the peridotite family. What 16
 is saxonite, and what mineral of economic value is sometimes associated therewith?

2. Give a brief account of the causes of magmatic differentiation. 16
3. What chemical and physical changes are involved— 16
 - (a) in the conversion of peridotite into serpentine-rock ?
 - (b) in the devitrification of pitchstone ?
4. Draw up a classification of the plutonic igneous rocks, explaining the principles on which your classification is based. 16
5. How would you distinguish under the microscope— 16
 - (a) picotite from rutile ;
 - (b) enstatite from olivine ;
 - (c) quartz from untwinned orthoclase ;
 - (d) zoisite from apatite ?
6. Basalt, dolerite, gabbro, eclogite, and amphibolite are closely related chemically. Explain the differences between these five rocks and the different physical conditions accompanying their formation. 16
7. Write a short essay on the causes of vulcanicity. 16
8. The three following analyses represent three holocrystalline igneous rocks. Discuss the points brought out by these analyses, and from inspection state what rock you think each analysis represent and what are likely to be its principal minerals :— 20

	A.	B.	C.
SiO ₂ . . .	80.2	46.7	42.8
Al ₂ O ₃ . . .	12.2	10.0	—
Fe ₂ O ₃ . . .	0.7	3.6	—
FeO . . .	—	8.2	9.4
MgO . . .	0.9	9.7	47.4
CaO . . .	—	13.2	—
Na ₂ O . . .	5.6	1.8	—
K ₂ O . . .	0.4	3.8	—
H ₂ O . . .	—	1.2	0.6
TiO ₂ . . .	—	0.8	—
P ₂ O ₅ . . .	—	1.9	—
Cr ₂ O ₃ . . .	—	—	0.3
	<hr/> 100.0 <hr/>	<hr/> 100.9 <hr/>	<hr/> 100.5 <hr/>

GEOLOGY.

THIRD HONOURS PAPER.

Examiner—G. DE. P. COTTER, ESQ., B.A., F.G.S.

*Candidates should give their answers in their own words
as far as practicable.*

The questions are of equal value.

Only FIVE questions to be answered.

1. State the characters, faunistic, or lithological, by means of which you would recognize the approximate depth below sea level at which strata have been originally deposited.

2. If a fracture of the earth's crust, accompanied by a relative displacement of the rocks, cuts across a vertical vein or dyke in a region of inclined strata, explain how you would recognize whether the fracture is an ordinary fault with vertical displacement, or whether the rocks have only been horizontally shifted.

3. If, from a railway carriage, you were observing hills situated too far for distinguishing the actual planes of bedding, but near enough to see clearly their general shape and outline, could you recognize in certain instances—firstly, whether certain hills are built of horizontal strata; secondly, whether other hills may consist of strata dipping at a moderate angle? How would you recognize such facts, and, in the second instance, how could you tell the direction of dip?

4. Explain under what circumstances the outcrop of a stratum will form a V pointing either up or down a valley.

5. How would you recognize whether strata are inverted?

6. How would you recognize whether a sheet of igneous rock amongst sedimentary beds is an intrusive sill or a contemporaneous flow?

GEOLOGY.

FOURTH HONOURS PAPER.

Examiner—P. N. BASU, ESQ., B.Sc., F.G.S.

*Candidates should give their answers in their own words
as far as possible.*

The questions are of equal value.

Only FIVE questions to be answered.

1. Give the main characters of the various orders of Reptilia together with their geological distribution.

2. Show, with the aid of diagrammatic sketches, the dispositions observed in the hinge of the Lamellibranchiata.

3. Give a sketch of the geological distribution of the belemnites.

4. What age would you attribute to rocks containing the following assemblages of fossils?—

(a) *Micraster*, *Cerithium*, *Voluta*, *Inoceramus*, *Corbula*, *Cytherea*.

(b) *Plicatula*, *Rostellaria*, *Orbitoides*, *Belemnitella*.

(c) *Cerithium*, *Voluta*, *Corbula*, *Cytherea*, *Spatangus*.

(d) *Dinotherium*, *Mastodon angustidens*, *Machairodus*.

(e) *Calamites*, *Sigillaria*, *Lepidodendron*.

5. Sketch the geological history of the crinoids.

6. What are the principal features that distinguish the marine fauna of the Trias from that of the Permian?

GEOLOGY.

FIRST PASS PAPER.

Examiner—BABU HEMCHANDRA DAS GUPTA, M.A.

Candidates are expected to answer the questions in their own words.

The figures in the margin indicate full marks.

Six questions only to be attempted, of which No. 5 must be one.

1. State in tabular form the chemical formula, crystallographic system, colour, and uses, if any, of each of the following minerals:— 18
apatite, brookite, cassiterite, goslarite, olivine, pitchblende, sodalite, and sulphur.
2. Give an account of the physical and chemical characters of the spinel group of minerals. State the uses to which certain members of the group are put. 16
3. How would you determine the refractive index of a piece of quartz? Describe, with a sketch, the apparatus you would use. 16
4. Explain the theory and use of the quartz wedge. 14
5. A certain mineral is found on analysis to have the following composition:— 18

SiO ₂	37.50 per cent.
Al ₂ O ₃	10.62 ..
Fe ₂ O ₃	16.68 ..
FeO	15.01 ..
CaO	11.67 ..
MgO	8.33 ..

99.81

Calculate the chemical formula, and state the name of the mineral in question. The following atomic weights may be used:—

Si=60, Al=27, Fe=56, Ca=40, Mg=24.

6. Give a short account of the varieties of rock into which a basaltic magma may solidify according to the physical conditions prevalent at the time of solidification. What do you know of the distribution of such rocks in India? 16
7. What do you understand by a petrographical province? Illustrate by reference to a province personally visited by you. 18
8. Distinguish between the following rock structures:— 14
 - (a) slaty cleavage and schistosity;
 - (b) micrographic and poikilitic;
 - (c) spherulitic and spheroidal;
 - (d) fluidal and augen structures.

GEOLOGY.

SECOND PASS PAPER.

Examiner—E. VREDENBURG, ESQ., B.Sc., F.G.S.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Only FIVE questions to be attempted, of which one must be No. 3 or No. 7.

1. Describe in some detail the various formations of recent and post-tertiary age India.

2. Explain in general terms the structural folds and faults of the tertiary formation in the Sub-Himalayan Range.

3. Assign the following species to their proper geological horizons :—*Neobolus warthi*, *Athyria royssii*, *Cardita beaumonti*, *Elephas antiquus*, *Stegodon cliftii*, *Ostrea multiconstata*, *Glossopteris indica*, *Gangamopteris cyclopteroides*, *Acanthoceras rotomagensis*, *Xenodiscus carbonarius*, *Spirifer rajah*, *Buddhaites rama*.

4. Describe with a diagram section any geological area with which you are familiar.

5. Draw up a table showing the subdivision of the Gondwana formation and their European equivalents. Mention any extra-peninsular occurrences of rocks of Gondwana facies.

6. Describe briefly and assign to their stratigraphical position :—Olenellus shales, Speckled sandstone, Gaj series, Cheyair volcanic rocks, Otoceras beds, Porbandar stone, Bagh beds, Talchir boulder-bed.

7. Describe with diagrams the structure of a brachiopod and nautilus.

8. What is meant by a palaeontological break? Give two well-known instances in some detail.

PRACTICAL GEOLOGY.

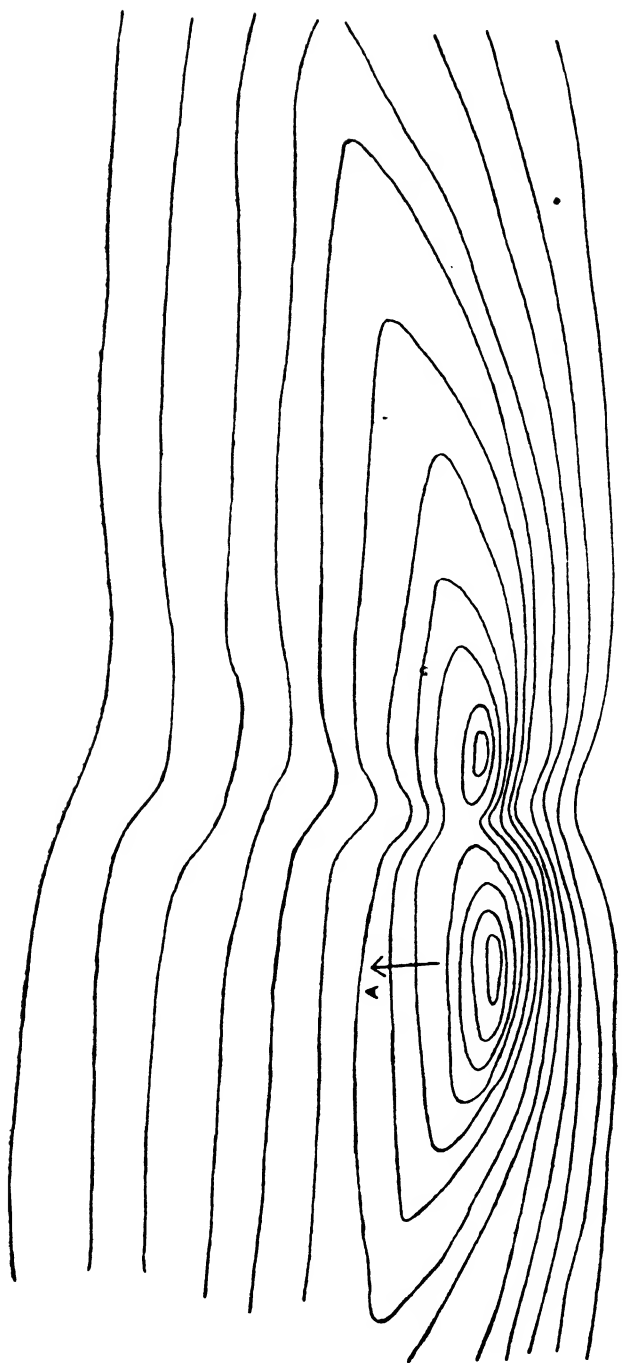
HONOURS PAPER.

STRATIGRAPHY AND PALAEOLOGY.

1. The head of the arrow at A corresponds with a point on the 40
outcrop of the upper boundary of a stratified mass dipping at 45° in the direction indicated by the arrow. The stratified mass has a regular structure throughout the area shown on the map. It is 300 feet thick. Draw its outcrop on the map. The contour lines are at intervals of 50 feet.

2. Identify the specimens 1 to 12; state their geological age, and 60
mention the principal structures observed in each case.

Note.—The following specimens were submitted for question 2 :
Xenodiscus carbonarius, *Turbinella ovvidea*, *Cypraea splendens*, *Vicarya vernenili*, *Turritella simplex*, *Ampullina crassatina*, *Ostrea longirostris*, *Cytheraea casta*, *Venus Aglaure*, *Atrypa reticularis*, *Echinolampas discoidens*, *Nummulites perforatus*.



1000 ft
500
0

PRACTICAL GEOLOGY.

PASS PAPER.

- | | |
|---|----|
| 1. Describe the physical characters of the specimens A and B. | 10 |
| 2. Identify the rocks C, D, E, and F. | 10 |
| 3. Describe the slides G and H. | 20 |
| 4. Give the chemical characters of the two mineral specimens in a tabular form. | 20 |
| 5. Identify the fossils I to P. | 16 |
| 6. Suppose that in course of your traverse in a country you successively come across (1) a bed of shales with <i>Monograptus</i> , (2) a band of limestone with <i>Calceola sandalina</i> , (3) a bed of boulders of large size with scratched and polished surfaces and embedded in a fine silty matrix, (4) a bed of carbonaceous shale with impressions of <i>Glossop-teris</i> , <i>Schizoneura</i> etc., (5) a bed of shale with <i>Belemnites</i> , (6) a bed like (4), (7) a bed like (3), (8) a bed like (5), (9) a bed like (4), (10) a bed like (3), (11) a bed like (2), (12) a bed like (1). The beds 1 to 4 and a part of 5 have a N.E. dip, while a part of no. 5 and beds 6 to 12 have a S.W. dip. | 24 |

Draw a diagrammatic section showing the structure of the country and give an account of the history of the place.

PHYSIOLOGY.

Paper-setters— $\left\{ \begin{array}{l} \text{HON. SIR NILRATAN SARKAR, M.A., M.D.} \\ \text{RAI UPENDRANATH BRAHMACHARI,} \\ \text{BAHADUR, M.A., M.D., PH.D.} \\ \text{MAJOR D. McCAY, M.B., I.M.S.} \end{array} \right.$
(Pass and Honours).

FIRST HONOURS PAPER.

Examiner—MAJOR D. McCAY, M.B., I.M.S.

Candidates are required to give their answers in their own words as far as practicable.

Four questions only to be attempted.

The questions are of the same value.

1. Discuss the mechanism of chemical changes in living matter.
2. State briefly what you know about enzymes and enzyme reaction.
3. Give the structural formula of Purine. What do you know about purine metabolism?
4. Write what you know about visual sensations and discuss the various theories of colour vision.
5. Discuss the mechanism of co-ordinated movements, referring specially to the work of Sherrington in this respect.

PHYSIOLOGY.

SECOND HONOURS PAPER.

Examiner—RAI BAHADUR DR. UPENDRANATH BRAHMACHARI,
M.A., M.D., PH.D.

FOUR questions only to be attempted.

The questions are of the same value.

1. Write a short account of the effects of Parathyroidectomy, discussing the functions of the parathyroids.
2. What views have been put forward to explain sleep and hypnosis?
3. Discuss the relationship of the Suprarenals to the genital system.
4. Write a careful note on bacterial digestion, discussing the effects of the injection of filtered extracts of faeces
5. Trace the afferent paths for cutaneous and muscle sensations in the spinal cord.

PHYSIOLOGY.

THIRD HONOURS PAPER.

Examiner—HON. SIR NILRATAN SARKAR, M.A., M.D.

FOUR questions only to be answered.

The questions are of the same value.

1. Discuss the relationship between the alkalinity of the blood, the dissociation curve of haemoglobin and respiration.
2. Give an account of the arrangement of the autonomic nerves, discussing the methods by which their functions and distribution have been determined.
3. Write a concise account of the present state of our knowledge concerning the relations which exist between the suprarenals and the kidneys. What new facts have been elicited by recent investigation in this connection?
4. Discuss the influence of the pituitary and thyroid on carbohydrate metabolism.
5. Give an account of the part played by lipoids in the animal body.

PHYSIOLOGY.

FOURTH HONOURS PAPER.

Examiner—S. C. MAHALANOBIS, ESQ., B.Sc., F.R.S.E.

FOUR questions only to be attempted.

The questions are of the same value.

1. Discuss "reciprocal innervation" as helping the maintenance and assumption of postures.
2. Discuss the formation of acetone bodies in the system. Give the tests for their presence in the urine.
3. Write a short note on the electrical changes in living matter.
4. Give an account of the chemical defensive mechanisms of the body against infection.
5. How would you estimate—
 - (a) Urea in the blood,
 - (b) Acetone in the urine ?

PHYSIOLOGY.

FIRST PASS PAPER.

Examiner—S. C. MAHALANOBIS, ESQ., B.Sc., F.R.S.E.

Candidates are required to give their answers in their own words as far as practicable.

FOUR questions only to be attempted.

The questions are of the same value.

1. Discuss the causation of the heart-beat. State what you know regarding the work of the heart.
2. Write a short note on the coagulation of the blood, referring briefly to the various theories that have been advanced to explain the phenomenon.
3. State what you know about metabolism during starvation. What is meant by the terms "Endogenous" and "Exogenous" protein metabolism ?
4. Discuss the retinal changes involved in vision, and the chemical and physical changes that occur in the retina during vision.
5. What is Weber's law ? What is Marey's law ? What is Ritter-Valle's law ? What is the Reaction of Degeneration ?

PHYSIOLOGY.

SECOND PASS PAPER.

Examiner—HON. DR. NILRATAN SARKAR, M.A., M.D.

FOUR questions only to be attempted.

The questions are of the same value.

1. Discuss the functions of the Rolandic area of the brain.
2. Discuss the interchanges of gases between the blood and the alveolar air.
3. Give a concise account of the absorption and metabolism of fat.
4. Give a careful description of the histology of cardiac muscle and discuss the myogenic theory of the heart-beat.
5. Discuss the evidence upon which the present knowledge of the functions of the cerebellum has been based.

PRACTICAL PHYSIOLOGY.

PASS PAPER.

1. Estimate the percentage of sugar present in the solution provided. 30
 2. (a) Make a film preparation of your own blood and stain to demonstrate the leucocytes. 25
 - (b) Identify the specimens (A, B, C, D and E) under the microscopes. 20
 3. Show the effect of heat and cold on muscular contraction. 25
- Leave permanent tracings.

PRACTICAL PHYSIOLOGY.

FIRST HONOURS PAPER.

1. Determine the percentage of ammonia in the solution provided. 35
2. Make a film preparation of your own blood—giving a differential count of polynuclear and eosinophilous leucocytes. 35
3. Make a graphic representation of the genesis of tetanus. Leave tracings. 30

PRACTICAL PHYSIOLOGY.

SECOND HONOURS PAPER.

1. Identify the nature of the two unknown substances provided. 35
2. Stain, mount and describe the histological section provided. 30
3. Demonstrate the action of the drug provided, on the frog's heart. Leave tracings. 35

BOTANY.

Paper-setters— $\left\{ \begin{array}{l} \text{S. C. MAHALANOBIS, Esq., B.Sc.,} \\ \text{F.R.S.E.} \\ \text{C. C. CALDER, Esq., B.Sc.} \\ \text{E. J. BUTLER, Esq.} \end{array} \right.$
 (Pass and Honours).

FIRST HONOURS PAPER.

Examiner—C. C. CALDER, Esq., M.A., B.Sc.

*Candidates are required to give their answers in their own words
as far as practicable*

All the questions are of equal value.

Only FIVE questions are to be answered.

1. Describe with examples the chief characters of flowering plants which are total parasites or total saprophytes.
2. How are the Scrophulariaceæ distinguished from the Solanaceæ ?
3. Write a short account of (a) the diatoms, or (b) the gasteromycetes.
4. In what form does the root find (a) potassium, (b) phosphoric acid, and (c) nitrogen in the soil ? How can they be replaced when the soil gets exhausted of them ?
5. Describe the process of fertilisation in *Vaucheria* and *Peronosporaceæ*, mentioning any differences in the nuclear changes observed in different species of the latter.
6. The island of Singapore produces some two thousand species of native flowering plants: the Isle of Wight, which is about equal in area, contains about eight hundred species; an equal area of the Egyptian desert is inhabited by less than two hundred species. To what causes do you ascribe these striking differences ?

BOTANY.

SECOND HONOURS PAPER.

Examiner—S. C. MAHALANOBIS, Esq., B.Sc., F.R.S.E.

*Candidates are required to give their answers in their own words
as far as practicable.*

All the questions are of equal value.

Only FIVE questions are to be answered.

1. Point out clearly the resemblances and differences between a moss and an angiosperm as regards (a) the gametophyte generation, (b) the process of fertilisation, and (c) the nursing of the embryo.
2. Discuss the distinguishing characters of the Leguminosæ. Mention the chief subfamilies and indicate how they be distinguished.

3. Contrast the sporangium of the myxomycetes with the sporangium and ascus of the fungi, mentioning the essential differences between the three structures.

4. What is the probable significance of the following features in the life history of an angiosperm :—(a) antipodal cells. (b) double fertilisation. (c) pollination ?

5. Write a short essay on the dispersal of fruits and seeds and specially indicate any adaptive structures in the fruit and seed which ensure their dispersal.

6. "The greatest break in the history of plants occurs between the Bryophyta and Pteridophyta." Discuss this statement.

BOTANY.

THIRD HONOURS PAPER.

Examiner—J. C. NAG, ESQ., B.Sc.

Candidates are required to give their answers in their own words as far as practicable.

All the questions are of equal values

Only FIVE questions are to be answered.

1. Describe fully the effects produced on the soil by a dense covering of vegetation.

2. Explain the influence of light on the *Distribution of plants*.

3. Write an essay on the ecological significance of lignification.

4. Enumerate the more common plants that you have found growing in a marsh. In what respects do marsh plants differ from dry land plants ?

5. Give an account of the various hypotheses that have been advanced to explain the method of construction of proteid by green plants.

6. The intercellular space system is best developed in water plants. Describe its origin and development here and comment on its function.

BOTANY.

FOURTH HONOURS PAPER.

Examiner—BABU SURENDRACHANDRA BANERJEE, M.A.

Candidates are required to give their answers in their own words as far as practicable.

All the questions are of equal value.

Only FIVE questions are to be answered.

1. Discuss the relations of bacteria to heat, light and air, distinguishing between the oxygen and nitrogen of the latter.

2. Write a short account of the prothallus of the Lycopodiaceæ.

3. Give brief notes on mycorrhiza and on salt and fresh water plankton.
4. Write an essay on the evolution of sex in plants.
5. The production of 4 spores from a spore mother-cell is a frequent phenomenon in the life history of many plants. Do you know of any explanation which covers many of these cases?
6. What families of true ferns are known from Palæozoic time? What are their modern representatives? What evidence do they afford to show that the seed plants were derived from ferns?

BOTANY.

FIRST PASS PAPER.

Examiner—DR. GIRINDRANATH MUKERJEE. B.A., M.D.

Candidates are required to give their answers in their own words as far as practicable.

All the questions are of equal value.

Only FIVE questions are to be answered.

1. Describe various methods in which flowering plants may reproduce themselves vegetatively.
2. Make sketches to illustrate the anatomical structure of a lichen and discuss the functions of the different parts.
3. Describe fully the process of development of pollen grains in the anthers of a monocotyledonous flower.
4. Write a short essay on the Labiatae or the Scrophulariaceae.
5. Describe and illustrate the development and structure of the capsule of a moss.
6. Describe fully any method by which you can find out what substances a green plant absorbs from the soil.
7. Mention three carnivorous plants and describe the structures that are adapted for catching or trapping the animals in each case.

BOTANY.

SECOND PASS PAPER.

Examiners—{ BABU SURENDRACHANDRA BANERJEE, M.A.
J. C. NAG, ESQ., B.Sc.

Candidates are required to give their answers in their own words as far as practicable.

All the questions are of equal value.

Only FIVE questions are to be answered.

1. What differences in development and structure may be observed between the stelar system of Selaginella and that of the flowering plants?
2. Trace the alternation of generations in the angiosperms.

3. Compare the leaf of an aquatic plant with that of land plant as regards (a) external form and (b) minute anatomy, and explain the significance of the differences observable.

4. Describe what you know as to the function of sieve tubes, and give an account of the formation of callus on sieve plate.

5. What is meant by placentation? Describe the structure of the ovary and the placentation in plants belonging to the families Leguminosæ, Amaryllidaceæ, Scrophulariaceæ, Orchidaceæ, Cruciferae, Ericaceæ.

6. Describe the structure of the thallus of any brown alga. What evidence does this group afford to show that the oogonium was originally a sporangium (gametangium)?

7. A vigorous young plant is placed in an atmosphere of pure nitrogen. Describe and discuss the effects produced on its metabolic activities.

ZOOLOGY.

F. H. GRAVELY, ESQ., M.Sc.
Paper-setters— { S. W. KEMP, ESQ., B.A.
 (Pass and Honours). { MAJOR R. E. LLOYD, M.D., D.Sc.,
 I.M.S.

FIRST PASS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

THREE questions only to be attempted.

1. How would you distinguish a sponge from a coelenterate?
2. Give an account of the external characters of *Limulus*. What are its affinities?
3. Compare the anatomy of a holothurian with that of an echinoid.
4. Describe, with diagrams, the principal types of nervous system met with in the Mollusca.

ZOOLOGY.

SECOND PASS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

THREE questions only to be attempted.

1. Discuss the nature of the more important peculiarities in the skeleton of the Monotremes.
2. Describe the vascular system of a lizard, and compare it with that of a fish and a mammal.
3. Describe the urino-genital organs of the rabbit, and compare them with those of Marsupials.
4. Define the order Syrenia, and mention the genera with their distribution.

L.T. Examination.

1917.

FIRST PAPER.

Examiner—W. E. GRIFFITH, ESQ., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

Only SIX questions to be attempted.

The questions are of equal mark value.

1. "Concepts without percepts are empty." Explain and illustrate this statement, and show its bearing on teaching.

2. When an almirah is drawn from memory, what psychological processes are involved in the effort? What practical bearing has this upon the memory-drawing exercises of school?

3. "The eye sees what the mind looks for." Illustrate this by simple examples, and apply it to school procedure. What bearing has it on a class visit to a museum?

4. "You are not attending, Abinash," said a teacher to one of his pupils. What is the meaning from a psychological point of view of such a reminder? How far is the reminder likely to be effective? By what methods may a teacher best secure the attention which he desires?

5. "Real advance in learning involves the clearer apprehension of relations, not the laborious collection of facts." Explain and illustrate this.

6. Distinguish clearly between sentiments and emotions. Show the importance of the distinction to the teacher.

7. What is the essential nature of Play? What is its function in mental development? How does this bear on your experience of playing games?

8. Why do pupils obey their teachers? Give as direct an answer as you can.

9. "Teachers commonly teach too much: pupils often do too little." In what sense may this be true? Give a careful summary of your reasons for thinking so.

SECOND PAPER.

Examiner—M. P. WEST, ESQ., M.A.

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as possible.

Answers should be concise : rhetorical writing should be avoided.

Answer the FIRST TWO questions and any THREE OTHERS.

1. As headmaster you are placed in charge of a very ill-disciplined school. What would be your general plan of action in regard to teachers, guardians, boys, for attaining better discipline ? What disciplinary devices would you introduce ? 20
2. Draw up a course of one week's work in any subject indicating the chief sections of method in each lesson, and adding explanatory notes with reasons for your arrangements, where necessary. 20
3. What are the chief faults in questioning to which teachers are liable ? Give advice on this subject. 20
4. How can you prevent backward boys being neglected ? (Plan :—Different types of backward boys. Needs of each. Organization of school to allow a chance for the backward. Class management and backward boys. Discipline of—.) 20
5. What steps can be taken to make school " the happiest time of a man's life " ? 20
6. Outline very briefly the main differences of the modern methods of teaching the following subjects from the old methods :—
Science : Geography : Drawing. 20
7. Give hints on hostel management,—organization, discipline, hygiene, with especial attention to diet. 20
8. " Great changes have occurred in the teaching of Mathematics of late years." What changes ? 20

THIRD PAPER.

Examiner—A. MERCER, ESQ., M.A.

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Answer Question 1, any two of 2, 3, 4 and 5, and either question 6 or 7, four questions in all.

1. Write an essay on one of the following subjects :— 50
 - (a) The practical value of the study of an educational classic.
 - (b) The provision for specialisation towards the end of the High School course for boys who do not intend to proceed to the University.
 - (c) " A well-trained Kindergarten teacher is of greater value to the community than a University professor."

2. Describe Dr. Arnold's attitude towards his assistant-masters. 15
What lessons may be learned by would-be headmasters of schools in Bengal from Dr. Arnold in this particular.
3. What was Dr. Arnold's opinion of the value of a classical training? Compare with Spencer's conclusion that "for discipline, as well as for guidance, science is of the chiefest value." 20
4. To what degree was the principle of self-government developed at Rugby during Arnold's rule? 15
5. What did Dr. Arnold consider was the proper function of instruction? 15
6. Explain the following extracts and apply their moral to schooling in Bengal. "....to be a nation of good animals is the first condition to national prosperity. Not only is it that the event of a war often turns on the strength and hardiness of soldiers; but it is that the contests of commerce are in part determined by the bodily endurance of producers.....Hence it is becoming of especial importance that the training of children should be so carried on, as not only to fit them mentally for the struggle before them, but also to make them physically fit to bear its excessive wear and tear." 15
7. What arguments does Spencer use in assigning a place to History in the School Curriculum? What specific teaching methods does he suggest for this subject? 15

FOURTH PAPER.

*Examiner—J. W. HOLME, M.A.**The figures in the margin indicate full marks.**Candidates are required to give their answers in their own words as far as practicable.*

GROUP A.

Answer THREE questions only.

1. Give in outline the story of "The Winter's Tale." 20
2. Write a brief character sketch of Miranda in "The Tempest." 20
3. Contrast the characters of King Lear and Macbeth. 20
4. Tell in your own words the story of the "pound of flesh," from "The Merchant of Venice." 20

GROUP B.

Answer TWO questions only.

5. Describe the scene between the Black Knight and Friar Tuck in the friar's cell. 20
6. Give a word-picture of a Norman castle such as existed in the reign of King Richard I. 20
7. Write a short account of Locksley's triumph. 20

B.T. Examination.

1917.

FIRST PAPER.

Examiner—J. TAYLOR. ESQ., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

Six questions to be attempted.

The questions are of equal value.

1. Give a brief account of the generally accepted explanation of the psychophysical processes that excite the visual sensations.

2. What is meant by the term "*Association*" ? What are the *Laws of Association*, and how may they be applied in the teaching of History ?

3. Distinguish between—

(a) Reproductive and Constructive Imagination ;

(b) Interpretative and Originative Imagination.

In what directions is it necessary for the teacher (a) to restrain, (b) to cultivate the imaginative activity of his pupils ?

4. What is meant by the term "*Judgment*" ? With which are judgments most associated, learning a science like physics, or learning an art like painting ?

5. Trace the development of purposive movements from impulsive movements, making clear the part played by feeling. What features must be exhibited by a system of early government in order that it may develop in a child a consciousness of the binding nature of duty ?

6. Give a careful analysis of the mental processes involved in writing.

7. On what grounds is manual training included in the school curriculum ? What type of manual work should be developed in an Indian high school for boys ?

8. Give some account of the principal mental tests that have been applied to the measurement of mental fatigue. Is it advisable for pupils to work after they shew signs of fatigue ? Does the ordinary work of our high schools lead to overburdening in the case of the average healthy pupil ?

SECOND PAPER.

*Examiner—M. P. WEST, ESQ., M.A.**The figures in the margin indicate full marks.**Answer the FIRST THREE questions and any TWO OTHERS.**Be concise ; avoid rhetorical writing.*

1. To what points should a headmaster look in making his daily inspection of the school buildings, hostels, grounds, office, ~~classrooms~~, teaching ? 20

Or,

What points should be looked to by an inspecting officer in inspecting a Middle English School ?

2. How can you encourage or compel a better use of leisure time by the boys of your school when you return ? (Organization of outdoor, of indoor recreation. Supervising home conditions). 20

3. Draw up brief notes of one week's work in any subject, giving a clear indication of the main sections of method in each lesson. 20

4. In teaching History how will you treat the subject of war ? Should wars be omitted ? Should the details of campaigns be taught ? How ? What should be the boys' attitude to war ? Will it vary with age ? or should it be fixed at an early stage ? 20

5. Discuss the limitations of the Direct Method. Indicate alternatives. 20

6. What subjects are supposed to encourage logical thought ? Show how bad teaching of these subjects fails to achieve this, how good teaching may do so. 20

7. Discuss the cultivation of creative imagination and artistic ability by means of essay writing, drawing, and manual work. 20

8. Give advice on the subject of the Art of Examination, the Problem of Promotion, and the Treatment of extreme variations of ability. (The three problems are closely related.) 20

THIRD PAPER.

Examiner—E. E. BISS, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable, acknowledging quotations by inverted commas and if possible references.

Each question carries 20 marks.

1. *Either,*

Write short notes on the lives and principal characteristics of four of the following educationists :—

(a) Erasmus, (b) Ratich, (c) Milton, (d) Comenius, (e) Locke, (f) Basé-dow, (g) Jacotot, (h) Ascham. *Or,*

Compare and contrast Rousseau and Froebel in respect of (a) their lives, (b) their educational principles and practices.

2.

Either.

Describe the education of an ancient Hindu of good social position, shewing clearly the principles which underlay the process.

Or,

How far are (a) modern western education and (b) the practices of the ordinary maktab of Bengal in harmony with the best period of mediaeval Muhammadan education ?

Either,

3. Select two different types of Greek education. Describe each and say to what extent the High English School in Bengal might profit by adopting Greek educational principles.

Or,

Survey briefly the development of culture among the Romans.

4.

Either,

Estimate the influence upon school work in modern times of the study of educational processes.

Taking any brief subject matter in any branch of instruction, sketch a lesson (a) upon the Socratic Method, (b) upon the Method of the Five Formal Steps, and (c) upon any third method that you consider suitable.

5.

Either,

Trace the history of modern elementary education in England. What are the main differences between the organization and control of elementary education in England and in Bengal ?

Or,

What board points of similarity and difference do you note in comparing High School education in America and in Germany ?

FOURTH PAPER.

Examiner—W. C. WORDSWORTH, ESQ., M.A.

Answer questions 1 and 6, and THREE OTHERS.

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Comment on the following in reference to their context (*four 20 only*) :—

(a) The vital knowledge—that by which we have grown as a nation to what we are, and which now underlies our whole existence—is a knowledge that has got itself taught in nooks and corners ; while the ordained agencies for teaching have been mumbling little else but dead formulas.

(b) The error we have been combating is that of *substituting* parental displeasure and its artificial penalties for the penalties which Nature has established.

(c) This design arose out of the very nature of his office : the relation of an instructor to his pupils was to him, like all the other relations of human life, only in a healthy state, when subordinate to their common relation to God.

(d) When first he entered on his post at Rugby, there was a general feeling in the country, that so long as a boy kept himself from offences sufficiently enormous to justify expulsion, he had a kind of right to remain in a public school.

(e) They saw in my methods nothing but a new way of teaching, reading and writing.

(f) We must bear in mind that the ultimate end of education is, not a perfection in the accomplishments of the school, but fitness for life ; not the acquirement of habits of blind obedience and of prescribed diligence, but a preparation for independent action.

2. To what (a) personal qualities, (b) tendencies in the development of English life, would you ascribe Arnold's great success as a Head Master ? 10

3. Summarise and criticise Spencer's teaching on moral education. 10

4. What are the chief lessons to be learnt from " How Gertrude teaches her children." 10

5. What does Pestalozzi tell us of the place of religion in education ? 10

6. Write an essay on one of the following subjects :— 50

(a) The claim of History to be regarded as a Science

(b) " The main problem . . for the statesman and educationist, as well as for the religious teacher, resolves itself into the question how to change and elevate the character of the mass of the people."

(c) Social traditions and outlook as determinants of the form of education.

(d) Examinations aim only at testing knowledge, not the power of applying knowledge in new ways.



Preliminary Scientific H.B. Examination.

APRIL 1917.

CHEMISTRY.

Four questions only to be answered in each half.

The questions carry equal number of marks.

Write the answers to each half in separate books.

FIRST HALF.

Examiner—RAI CHUNILAL BASU, BAHADUR, I.S.O., M.B.,
F.C.S.

1. Explain briefly the Laws of Chemical Combination, giving one example in each case.

2. Name the chief gaseous constituents of the atmosphere and state their proportions in 100 volumes of air. Describe briefly the eudiometric method of determining the composition of air.

3. State how the following substances are ordinarily prepared and give their formulæ. Describe their properties and uses and give one characteristic test for each:—

(a) Iodide of Potassium; (b) Chloride of Gold; (c) Calomel; (d) Bichromate of Potassium.

4. Explain the following terms, illustrating your answers with examples:—

(a) Synthesis; (b) Dissociation; (c) Catalysis; (d) Destructive distillation; (e) Compound radicle.

5. What is "White lead"? Give the formula of the substance. Describe the Dutch method of its manufacture and mention its chief use, explaining the advantages and the disadvantages attending it.

SECOND HALF.

Examiner—DR. BENIMADHAR CHAKRABARTI, B.A., I.M.S.

6. What do you understand by Allotropic Modification of an element? Describe the allotropic forms of Oxygen and Sulphur. How are they obtained?

7. By what tests would you distinguish a Nitrite from a Nitrate, a Sulphite from a Hyposulphite, a Chloride from a Chlorate, and an Arsenite from an Arsenate?

8. Describe briefly the manufacture of Sulphuric Acid by the "Chamber" process, noting the chemical changes that take place in it. State the properties and uses of Sulphuric Acid.

9. Compare in a tabular form the physical and chemical properties of the elements of the Halogen Group

10. Contrast the properties of *Wrought Iron* and *Steel*. Name the principal oxides of iron and state how they may be obtained. Give two distinguishing tests for Ferrous and Ferric Compounds.

PHYSICS.

Only THREE questions to be attempted in each half.

Write the answers to each half in a separate book.

Neatness will be considered in allotting marks.

Sketches should be drawn with a black lead pencil.

The questions carry equal marks.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Examiner—BĀBU TULSIDAS KAR. M.A.

1. Prove that the space traversed by a body, moving from rest, with uniform acceleration is proportional to the square of the time

Describe a method of verifying the above relation in the case of a falling body.

2. Explain the theory and the method of finding the specific gravity of a powder by the specific gravity flask.

How would you modify the method, if the powder be soluble in water ?

3. Clearly explain how sound vibrations are propagated through air. Prove $V = n\lambda$.

4. Describe a method of finding the coefficient of expansion of air.

Calculate the mass of 100 litres of dry air at 30°C . and under the pressure 780 mm.

Density of air at N.T.P. $= 0.001293$ gramme.

5. Define—Specific heat and water-equivalent.

A platinum cylinder, weighing 100 grams, is raised to the temperature of a furnace, and is then transferred to a calorimeter of water-equivalent 15 grams, containing 500 grams of water at 30°C . The final temperature of the water is found to be 35°C . Calculate the temperature of the furnace, the average specific heat of platinum being 0.032.

SECOND HALF.

Examiner—BĀBU JNANCHANDRA GHOSH. M.A.

6. Deduce the relation between the object distance, the image distance and the focal length, when the object is placed beyond the principal focus of a double convex lens.

Explain the method, based on the above principle, for accurately finding the focal length of a thin convex lens.

7. Give a brief description of the spectroscope and explain the working adjustments.

What is the explanation given for the existence of dark lines in the solar spectrum?

8. Describe any Influence Machine, and explain its action.

9. Describe simple experiments to verify Faraday's Laws of electrolysis.

A current is sent through a silver voltameter for 15 minutes, and the increase in weight of the kathode is found to be 0.502 gram. Calculate the average current, E.C.E. of silver being 0.001118 gram per coulomb.

10. Describe Clarke's Electromagnetic Machine or the medical battery, and explain its action.

BOTANY.

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Examiner—C. C. CALDER, ESQ., M.A., B.Sc.

Answer only two questions.

1. Write an essay on *any one* of the following natural orders: 50
 - (a) Apocynaceæ,
 - (b) Leguminosæ,
 - (c) Compositæ.
2. Describe the meaning of the following terms as applied in 50
Systematic Botany:—
Epiphyte, tuber dichotomous, vernation, capitulum, receptacle.
3. Describe the structure and germination of the seeds of the pea 50
and wheat.

SECOND HALF

Examiner—MAJOR R. E. LLOYD, M.D., I.M.S.

Only two questions to be answered.

4. Describe how a vegetable cell divides, and illustrate by dia- 50
grams.
5. Describe the structure and life-history of a desmid. 50
6. Describe the reproductive process in *Selaginella*. 50

ZOOLOGY.

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

Only TWO questions to be answered in each half.

Write the answers to the two halves in separate books.

FIRST HALF.

Examiner—DR. EKENDRANATH GHOSH, M.D., M.Sc.

1. Describe and compare the nervous systems of *Pheretima* and *Palaemon*. Illustrate your answer with diagrams. 50
2. Describe briefly the various modes of reproduction in Protozoa as exemplified by *Amœba*, *Paramecium* and *Monocystis*. 50
3. Describe the reproductive organs of an *Achatina*. 50

SECOND HALF.

Examiner—MAJOR R. E. LLOYD, M.D., I.M.S.

Only TWO questions to be answered.

4. Describe the vertebral column and the shoulder girdle in a Teleostean fish, in the frog and in a mammal. 50
5. Draw a diagram of a longitudinal section through the eye of a vertebrate, naming the various parts. Describe briefly the development of the vertebrate eye. 50
6. Describe the respiratory organs with their blood supply in a fish, a frog and a mammal. 50

First M.B. Examination.

APRIL 1917.

ANATOMY.

PASS PAPER.

The questions are of equal value.

Only two questions in each half to be answered.

Write the answers to the two halves in separate books.

FIRST HALF.

Examiner—DR. LALITMOHAN BANERJEE, M.S., F.R.C.S.

1. Describe the Fourth Ventricle of the brain.
2. Describe the Esophagus and its relations.
3. Describe the origin, course, relations and distribution of the Obturator nerve.

SECOND HALF.

Examiner—DR. BIDHANCHANDRA RAY, M.D., F.R.C.S.,
M.R.C.P.

4. Describe the upper end of the Tibia up to the level of the Tubercle. Mention the structures attached to it with their positions.
5. Describe the external Pterygoid muscle, giving its relations and nerve supply.
6. Write short notes on *any five* of the following :—
 - (a) Foramen of Monro,
 - (b) Pes Hippocampi,
 - (c) Vestigial fold of Marshall,
 - (d) Foramen of Winslowe,
 - (e) Meckel's Diverticulum,
 - (f) Phrenico-colic ligament,
 - (g) Punch of Douglas,
 - (h) Crural Canal,
 - (i) Ligamentum Posticum Winslowii.

ANATOMY.

HONOURS PAPER.

The questions are of equal value.

Only TWO questions in each half to be answered.

Write answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—DR. LALITMOHAN BANERJEE, M.S., F.R.C.S.

1. Describe the urinary bladder and mention its relations and development.
2. Enumerate the muscles concerned in the act of deglutition and mention their attachments and nerve supply.
3. Describe the two suprarenal glands. Give their relations, vascular supply, and mode of development.

SECOND HALF.

Examiner—DR. BIDHANCHANDRA RAY, M.D., F.R.C.S.,
M.R.C.P.

4. Describe the Ovary, its relations, and an account of its vascular and lymphatic supply. Give its mode of development.
5. Describe in detail the arterial and venous supply of the heart.
6. Describe the Island of Reil.

PHYSIOLOGY.

PASS PAPER.

Only TWO questions in each half to be answered.

The questions are of equal value.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—S. C. MAHALANOBIS, ESQ., B.Sc., F.R.S.E.

1. What is blood-pressure? What factors cause variations in arterial blood-pressure? Describe some method of estimating the arterial pressure in man.

2. Give an account of (a) the functions and (b) the fate of the various organic constituents of bile.

3. Describe the process of urinary secretion with special reference to the work done by (a) the glomeruli and (b) the glandular epithelium of the convoluted tubes.

SECOND HALF.

Examiner—MAJOR D. McCAY, M.B., I.M.S.

4. Discuss the nervous mechanism of respiration. What is Cheyne-Stokes respiration?

5. Write a short note on what you know about the physiology of taste.

6. What are the anatomical and physiological characteristics of cardiac muscle?

PHYSIOLOGY.

HONOURS PAPER.

Only two questions in each half to be answered.

The questions are of equal value.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—S. C. MAHALANOBIS, Esq., B.Sc., F.R.S.E.

1. Describe the connections and functions of the eighth cranial nerve.

2. Discuss the origin of fat in the body from sources other than the fat of the food, and indicate the nature of the chemical changes involved in the processes you describe.

3. What is Widal's reaction? Explain the action of agglutinins and precipitins by the side-chain theory.

SECOND HALF

Examiner—MAJOR D. McCAY, M.B., I.M.S.

4. Write a careful note on the mechanism of oxidation in the tissues.

5. Give a short account of the life-history of the red blood corpuscles.

6. Describe Haldane's method for determining the oxygen capacity of the blood.

PHARMACOLOGY.

Candidates are required to give the answers in their own words as far as practicable.

SIX questions are to be attempted, three from each half, of which questions one and two in second half are compulsory.

FIRST HALF.

Examiner—LT.-COL. B. H. DEARE, M.B., I.M.S.

1. What are the Vegetable Astringents. Name them and discuss 100 their therapeutic uses.
2. What is Pituitarin? Discuss its therapeutic action. 100
3. Classify the Volatile Oils; how do they differ from fixed oils? 100 and briefly discuss their therapeutic uses.

SECOND HALF.

Examiner—DR. BIRENDRANATH GHOSH.

1. Classify the drugs used as Anthelmintics, and describe the doso- 100 logy, action and effects of the one commonly used for Round Worms.
2. Describe the action of saline purgatives and discuss their thera- 100 peutic indications and contra-indications.
3. Describe the pharmacological action and therapeutic uses of 100 Chloral hydrate.
Or,
4. Describe the action of Eserine on the eyes and coffeino on the 100 heart, and mention how these actions render them therapeutically useful.

PHARMACOLOGY.

HONOURS PAPER

FIRST HALF.

Examiner—DR. BIRENDRANATH GHOSH.

All THREE questions to be answered.

1. Napthol Discuss:— 100
(1) its solubility;
(2) its incompatibilities;
(3) its therapeutic actions.
2. Discuss the pharmacology and therapeutics of the Purin Deriva- 100 tives.
3. The Volatile Oils. What are they? How do they differ from 100 fixed oils? Discuss their occurrence and classify them.

SECOND HALF.

Examiner—LT.-COL. B. H. DEARE, M.B., I.M.S.

4. Classify the drugs used as hæmostatics and discuss their therapeutic uses, particularly in relation to pulmonary hæmorrhages. 100

5. Describe fully the treatment of *Ankylostoma Duodenale*, giving 150 full directions and prescription.

Or,

Write a short essay on hormone therapy, describing briefly the therapeutic applications of some of the most important animal extracts.

ORGANIC CHEMISTRY.

Question 1 and two others in each half to be answered.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—RAI CHUNILAL BASU, BAHADUR, I.S.O., M.B., F.C.S.

1. How would you determine the molecular weight of an organic compound by Victor Meyer's method? Give a rough sketch of the apparatus. 40

Is the method applicable in all cases?

2. How is Tartaric Acid commercially prepared? Describe its properties and tests. Mention its different isomeric forms and state their distinctive characters. 30

3. What is Phenol and how is it obtained commercially? Describe its properties, test and uses. 30

4. Give two Chemical tests for each of the following substances:— 30

(a) Chloral; (b) Acetone; (c) Ethyl alcohol; (d) Oxalic acid; (e) Acetaldehyde.

SECOND HALF

Examiner—R. N. SEN, ESQ., M.Sc.

5. Describe the experiments by which you can show that cane-sugar is a compound of C, H and O, and that it belongs to the class of organic compounds known as "Carbohydrates." 40

6. An alcoholic liquor containing ethyl alcohol, water and grape sugar is given to you. How would you determine the proportions of alcohol and sugar in the liquor? 30

7. Describe the preparation and properties of three organic compounds which may be used (1) as an anæsthetic; (2) as an antiseptic; (3) as a soporific respectively. 30

8. Write what you know about the alkaloids—Atropine, Morphine and Strychnine as regards their sources, methods of extraction, tests and uses.

Final M.B. Examination.

1917.

MEDICINE.

FIRST PASS PAPER.

The questions carry equal marks.

FIRST HALF.

Examiner—RAI BAHADUR DR. UPENDRANATH BRAHMACHARI,
M.A., M.D., PH.D.

1. Discuss briefly the significance of the presence of albumen and sugar in the urine as indications of disease.

2. Give the etiology, symptoms, signs and diagnosis of Broncho-Pneumonia? Mention its prognosis.

SECOND HALF.

Examiner—RAI BAHADUR DR. UPENDRANATH BRAHMACHARI,
M.A., M.D., PH.D.

3. Discuss the origin of gall stones and describe the effects, immediate and remote, to which they give rise.

4. Give the etiology, pathology, symptoms and diagnosis of acute gout.

Or,

State briefly what you know about the following :—

(a) Pellagra.

(b) Paroxysmal Tachycardia.

(c) Purpura rheumatica and Henoch's Purpura.

(d) Pulmonary hypertrophic osteo-arthritis.

MEDICINE.

SECOND PASS PAPER.

The questions carry equal marks.

FIRST HALF.

Examiner—RAI BAHADUR DR. UPENDRANATH BRAHMACHARI,
M.A., M.D., PH.D.

1. Give the etiology, symptoms and diagnosis of Musculospira paralysis.
2. What are the causes of hepatic enlargement? State briefly the differential diagnosis of such a case.

SECOND HALF.

Examiner—RAI BAHADUR DR. UPENDRANATH BRAHMACHARI,
M.A., M.D., PH.D.

3. Under what conditions is excess of Mucus met with in the stools? How would you proceed to investigate such a case?
4. Describe the claw hand "Main-on-Griffe." Under what conditions is it met with and how would you distinguish them.

Or,

What is delirium? What are its causes? Discuss the differential diagnosis of its causes.

MEDICINE.

FIRST HONOURS PAPER.

FIRST HALF.

Examiner—RAI BAHADUR DR. UPENDRANATH BRAHMACHARI,
M.A., M.D., PH.D.

1. Define Splenic Anaemia. Give its symptoms and signs. Point out how you would diagnose it from other splenomegalics, especially those of the tropics.
2. Discuss our present knowledge concerning the etiology of Black-water Fever. Give its symptoms and signs. Discuss what you consider the best means of preventing and curing the disease.

SECOND HALF.

Examiner—LT.-COL. J. T. CALVERT, M.B., I.M.S.

3. Discuss the signs and symptoms of a tumour of the cerebellum.

Or,

4. Under what condition is nystagmus met with ? Discuss briefly its diagnostic value.

SURGERY.

FIRST PAPER

The questions carry equal marks.

FIRST HALF.

Examiner—LT.-COL. R. BIRD, C.I.E., M.D., I.M.S.

1. Describe fully the diagnosis, progress and treatment of a recent case of fracture of 7th cervical vertebra.
2. Give the differential diagnosis of the various causes of venal hæmaturia.

SECOND HALF.

Examiner—LT.-COL. R. BIRD, C.I.E., M.D., I.M.S.

3. Describe the course of a case of hydrocephalus, giving the treatment of its different stages.
4. What are the complications of duodenal ulcer, and how are they treated ?

SURGERY.

SECOND PASS PAPER.

The questions carry equal marks.

FIRST PAPER.

Examiner—DR. SURESPRASAD SARBADHIKARI, C.I.E., M.D.

Only two questions are to be answered.

1. What are the varieties of dislocation of the Patella ? Indicate the nature of the deformity in "Outward" and "Rotary" dislocations. How would you deal with the two forms ?

2. Describe the course which abscesses in neglected cases of Hip Joint Disease follow, the sites where they "point" and how you would deal with them.

3. What is Ankylosis? Discuss in detail the question of its treatment.

SECOND HALF.

Examiner—DR. SURESPRASAD SARBADHIKARI, C.I.E., M.D.

4. What is "Malignant Edema"? Describe its pathology, signs, symptoms, differential diagnosis and treatment.

5. What do you know of Dermatitis of Radio-active origin?

SURGERY.

HONOURS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Answer TWO questions only.

Examiner—DR. SURESPRASAD SARBADHIKARI, M.D.

1. Describe the part played by leucocytes in the determination of 300 surgical diseases.

2. Trace the history of "GOG" and its successors. Describe their 300 approximate, composition as well as action and uses.

3. Describe exhaustively methods of tissue transplantation for 300 surgical purposes, with special reference to recent advances in this direction.

MIDWIFERY.

PASS PAPER.

The figures in the margin indicate full marks.

Write the answer to the two halves in separate books.

FIRST HALF.

Examiner—DR. KEDARNATH DAS, M.D.

1. Describe how, by vaginal examination, you will diagnose the 125 various presenting parts, with their positions.

2. How is the placenta formed? What is its structure, and what 125 are its functions?

SECOND HALF.

Examiner—MAJOR H. B. STEEN, M.D., I.M.S.

3. A patient has suffered from a Hydatiform mole a few weeks 125 prior to her consulting you. She complains now of severe hæmorrhage from the vagina. What may be the causes, and how would you manage the case?

4. Under what conditions would you perform craniotomy? Describe briefly the operation. 125

Or,

Describe in detail how you would repair a complete rupture of the perinæum immediately after labour. Give the after treatment. 125

MIDWIFERY AND GYNAECOLOGY.

HONOURS PAPER.

Write the answer to the two halves in separate books.

FIRST HALF.

Examiner—DR. KEDARNATH DAS, M.D.

1. A case of pregnancy is complicated by one or more "fibroids." How would you treat the case, stating your reasons?

2. How do uterine displacements influence conception and pregnancy?

SECOND HALF.

Examiner—MAJOR H. B. STEEN, M.D., I.M.S.

3. A woman consults you with a history of three successive abortions and wants you to treat her with a view to getting a living full-term child. State in detail your treatment, giving your reasons for the measures taken.

PATHOLOGY.

PASS PAPER.

*Only FIVE questions to be attempted.**The questions carry equal marks.**Write the answers to the two halves in separate books.*

FIRST HALF.

Examiner—LT.-COL. SIR L. ROGERS, KT., C.I.E., I.M.S.

1. Describe the microscopical lesions in acute peritonitis. Mention the organisms which may produce this disease.

2. Enumerate the human vegetable parasites, other than bacteria, and the diseases they produce; and describe the microscopical characters of any two of them.

3. Describe the occurrence and the chemical and microscopical characters of Colloid Degeneration.

SECOND HALF.

Examiner—DR. TARAKNATH SUR, M.B.

4. Enumerate the common forms of Intestinal Ulcers. Give a full and comparative description of their naked eye and microscopical appearances.

5. What evidence would you expect to find in the blood, bone marrow and spleen of a case of Leishmania and Leukæmia? State briefly how the pathological changes can be demonstrated.

6. Name some common pathogenic *bacteria* that gain entrance to the body chiefly through—

(i) the Skin; (ii) the Respiratory tract.

Describe the morphology and cultural characters of any two gram-positive bacilli of each.

PATHOLOGY.

HONOURS PAPER.

Write the answers to the two halves in SEPARATE books.

The questions carry equal marks

Only THREE questions to be attempted.

FIRST HALF.

Examiner—LT.-COL. SIR L. ROGERS, KT., C.I.E., I.M.S.

1. Describe the causation, naked-eye and microscopical characters of the different forms of suppuration in the Liver.

2. Describe the pathological lesions which may be produced by the *Bacillus Coli Communis*.

SECOND HALF.

Examiner—DR. TARAKNATH SUR, M.B.

3. How would you proceed to determine the infective conditions of throat and pharynx. Discuss in detail the interpretations of the results of your examinations.

4. Discuss the properties of the various substances that are produced in the blood of an animal immunised with bacterial vaccines, illustrating with examples. State what advantage would a specific bacterial vaccine have over a specific Antitoxic Serum as a prophylactic agent.

MEDICAL JURISPRUDENCE.

PASS PAPER.

Only two questions to be attempted in each half paper.

Write the answers to the two halves in separate books.

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF.

Examiner—MAJOR N. P. SINHA, M.B., M.R.C.P., I.M.S.
(Retired).

1. Discuss fully how you will proceed to examine " Wounds " in 100
the Living and in the Dead.
2. Under what circumstances are you likely to be called to ex- 100
amine a woman alleged to be pregnant ? Describe the post-mortem
appearances in a woman died of criminal abortion.
3. How will you decide the age and sex of a partly mutilated body ? 100

SECOND HALF.

Examiner—RAI BAHADUR DR. LALBHAI GANGULY, M.B.

4. Give the fatal dose and period, signs, symptoms, mode of death 100
and post-mortem appearances of poisoning by strong Nitric Acid.
5. What is Homicidal Mania ? Mention and discuss the points 100
that you regard as indicative of Homicide by an insane person.
6. What is Live birth ? What are the common methods of In- 100
fanticide in India ? What post-mortem appearances would prove
that the death of an infant was due to criminal violence ?

HYGIENE.

Candidates are required to give their answers in their own words as far as practicable.

Answer only two questions from each half.

The questions are of equal value.

Write the answers to the two halves in separate books.

FIRST HALF.

Examiner—DR. C. A. BENTLEY, M.D.

What are the sanitary defects to be ordinarily observed in the methods of disposing of excreta in towns and villages in this country ?

State the dangers which arise from these defects and the remedies you would propose, taking into consideration the question of expense.

2. What do you understand by the following terms commonly used in relation to malaria as it affects a community :—

- (a) Spleen Index.
- (b) Parasite Index.
- (c) Fever Index.

State how malaria is transmitted, explaining how you can demonstrate the method of infection.

3. What do you know about the milk supply of Calcutta ? What are the common adulterants of milk, and how would you detect their presence ? What diseases are likely to be transmitted by milk ?

SECOND HALF.

Examiner—DR. TARAKNATH MAJUMDAR, L.M.S., D.P.H.

4. There has been an epidemic of Bubonic Plague in a small town in Bengal. Indicate mainly the line of your investigation, having for its purpose the finding out of the cause of the epidemic and state the preventive measures which should be adopted by you as Health Officer of the town. •

5. Describe a sanitary service privy which you recommend for being built in a dwelling house of a gentleman, situated in a non-sewered town in Bengal.

6. Mention the various articles of food that are liable to convey parasitic diseases to man. Describe the form in which the parasites are present in the respective articles.

Preliminary B.L. Examination.

JANUARY 1917.

FIRST PAPER.

JURISPRUDENCE.

Paper-setter—PRAMATHANATH CHAUDHURI, Esq., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners— { ARTHUR BROWN, Esq., M.A., LL.B.
 { N. C. SEN, Esq., M.A.

Candidates are permitted to attempt FIVE questions only.

1. Analyse the legal conception of "ownership." 10
2. Define a "juristic act." 10
- What are its requisites and modes of expression?
3. State reasons in explanation of the rule—"ignorance of law is no excuse." 10
4. State the essential characteristics of "corporations." How are "corporations created and dissolved"? 10
5. Explain why "the realisation of the 'civitas maxima,' of which theorists have dreamed, would be not the triumph, but the extinction, of International law." 10
6. Explain the difference between Tort and Crime. Illustrate your answer with special reference to defamation. 10
7. Write short notes on *any two* of the following legal terms:— 10
 - (a) Usucapio;
 - (b) Usufruct;
 - (c) Universitates bonorum;
 - (d) Adjective law.

SECOND HALF.

Examiners— { PRAMATHANATH CHAUDHURI, Esq., M.A.
 { KARUNAMAY BASU, M.A., B.L.

Candidates are permitted to attempt FIVE questions only.

8. "The movement of progressive societies has hitherto been a movement from Status to Contract." Explain fully why this has happened. 10

9. Explain and illustrate the importance of Fictions in the infancy of law. 10

10. Trace the gradual changes through which the modern conception of contract has emerged from the ceremonial contracts of ancient times. 10

Or,

Compare the "Responsa Prudentium" of Roman Law with the English Case-law.

11. State briefly the difference between the American and the Swiss constitutions. 10

12. What is the law administered by the Courts of British India? 10

13. Give a short account of *any two* of the following cases, stating clearly the principles illustrated therein: 10

(a) *Entick v. Carrington*.

(b) *Ex parte D. F. Marias*.

(c) *Stockdale v. Hansard*.

(d) *Howell's case*.

SECOND PAPER.

ROMAN LAW.

Paper-setter—S. C. ROY, ESQ., B.A., LL.B.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer only FIVE questions in EACH half.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners— { S. C. ROY, ESQ., B.A., LL.B.
D. N. MITTER, ESQ., B.Sc., LL.B.

ROMAN LAW.

1. During the later Republic, what were the influences at work for the development of Roman law? 10

2. Compare the rights of the two classes of freemen at the time of Justinian. 10

3. Write short notes on *two* of the following, giving illustrations:— 10

(a) accession,

(b) emphyteusis,

(c) libellary system,

(d) Falcidian Fourth.

4. Shortly describe the three kinds of wills chiefly employed in Justinian's day. 10

5. *A*, whose crop has ripened earlier, delivers one bushel of corn to *B*, who agrees to return to *A* a corresponding quantity as soon as his (*B*'s) crop ripens. What kind of contract is this in Roman Law? What are its chief peculiarities? 10

6. Describe with illustrations *one* of the following delicts: (*a*) Damage, (*b*) Outrage. 10

7. By what procedure did the Praetor give relief in cases (*a*) of mistake or fraud, (*b*) where he desired to forbid some act. 10

SECOND HALF.

PRINCIPLES OF LEGISLATION.

Examiners— { S. M. ROSE, ESQ., M.A., LL.B.
P. K. CHAKRABARTI, ESQ., M.A.

8. "Civilisation consists in teaching men to govern themselves by letting them do it. . . . The compulsion of the individual by an external authority is unnecessary, inexpedient and morally wrong." Explain this latter statement. 10

9. What in your opinion should be the relation of State regulation to liberty? Illustrate your remarks. 10

10. Illustrate, from the trend of legislation during the nineteenth century, the fact that in Europe there has been an increased consciousness of the claims of human weakness. 10

11. "Mere government by majority is an extraordinarily unsatisfactory and clumsy way of reaching the general will." Can you suggest any other method of ascertaining the general will? 10

12. What do you understand by Governmental maternalism? Can you defend it? Illustrate your remarks. 10

13. "Man is a competitive animal." Is it desirable to legislate in order to control competition? Give your reasons. 10

14. Would you give legislative recognition to a "right to work"? If so, shortly indicate the methods you would advocate. 10

THIRD PAPER.

HINDU LAW.

Paper-setter—DR. NARESCHANDRA SENGUPTA, M.A., D.L.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

Examiners—{ BABU MOHINIMOHAN CHAKRABARTI, M.A., B.L.
DR. NARESCHANDRA SENGUPTA, M.A., D.L.

FIRST HALF.

1. Explain the distinction between obstructed and unobstructed inheritance in the Mitāksharā, and indicate the bearing of the distinction on the respective rights of sons, grandsons, and great-grandsons on the one hand, and other relations of the *karta* living in the family, on the other. 10

Or,

Fully explain the difference between the Dayabhaga and the Mitāksharā with reference to (1) the meaning of the term Stridhan; (2) the kinds of property owned by a woman which can be called Stridhan; and (3) the extent of the widow's interest over property inherited from the husband.

2. State the general rule relating to prohibited degrees in marriage according to Hindu Law, explaining the terms *sapinda*, *sagotra* and *bandhu*. 10

Or,

A marries his mother's grandfather's daughter's son's daughter's daughter. B, a Kayestha, marries the daughter of a Vaidya. C marries a girl who is older than himself. D marries a girl 10 years old with the consent of her mother, but without the consent of her elder brother who is alive. State, with reasons, the legal effect of the marriage in two of these cases.

3. A, a Hindu, who has inherited no property from his father except a valuable family dwelling house, has the following relations: B his mother, and C the widow of a brother who predeceased his father. What rights have B and C against A? How far are these rights available against a purchaser of the ancestral homestead from A? 10

4. State fully the facts of and the decision in *Katama Natchiar v. Raja of Shivaganga*; 10

Or,

Bhubanmoyee v. Ram Kishore.

5. A, a Hindu, granted a taluk to his sister B by a sunnud which said, "You and heirs of your womb shall successively enjoy the same. No other heirs of yours shall have right or interest." At the date of the sunnud B had one daughter C. Subsequently she had a son who died in her lifetime, leaving a widow who adopted a son D. B by a will gave the property in equal halves to C and D. After B's death 10

A's heir contests the rights of *C* and *D* on the grounds, (1) that the interest of *B* in the property was a life estate with gift over to her heirs of the womb; (2) that the gift in favour of the heirs was void as an attempt to create a new kind of estate; and (3) that the gift to the heirs was altogether void as a gift to a class some members of which were unborn at the date of the gift. Discuss how far these objections are sound.

SECOND HALF.

Examiners—{ *BABU JOGESCHANDRA DE. B.L.*
BABU BIRAJMOHAN MAJUMDAR, M.A., B.L.

6. (a) Who are the members of the coparcenary in a Mitaksharâ family? 10

(b) *A, B* and *C* are persons living in commensality in a Mitaksharâ family. *A* is sixth in descent from the common ancestor; *B* is *A's* great-great-grandfather's great-grandson; *C* is daughter's son of *A's* grandfather. Would the incidents of a joint Mitaksharâ family apply to this family?

7. Compare and discuss the respective liabilities (1) of the Mitaksharâ son for the debts of his father, (2) of the Mitaksharâ grandson for the debts of his grandfather. *Or,* 10

How far is an impartible Raj in the hands of a person governed by the Mitaksharâ law liable to the incidents of Joint Family Property? What are the rights of the Raja for the time being in that property?

8. Discuss the respective rights of sons, and daughters, to inherit various kinds of Stridhan property of the mother according to either the Mitaksharâ or the Dayabhaga. 10

9. Discuss the effect of unchastity on the legal rights of a wife during the husband's lifetime and after his death. 10

10. *A*, a Hindu, governed by the Dayabhaga law, dies leaving behind him a widow, a widowed daughter *B* who has married again, and *C* a son of *B* by her second husband. By a Will *A* gives the life interest in his property to his widow with a vested interest in remainder to *B* and her heirs. After the widow's death *A's* brother brings a suit claiming as *A's* heir. On behalf of the plaintiff, evidence is given that the second marriage of *B* never took place and that *B* was in fact living in concubinage. For the defence, evidence is given to prove the second marriage of *B* and that the marriage took place before *A's* death though after the execution of the Will. This is challenged by the plaintiff. Give the substance of the arguments you would advance as pleader for either the plaintiff or for *B* or for *C*. 10

Intermediate Examination in Law.

JANUARY 1917.

FIRST PAPER.

MOHAMEDAN LAW AND THE LAW RELATING TO PERSONS.

Paper-setter—S. KHODA BUKSH, ESQ., M.A., B.C.L.

Candidates are required to give their answers in their own words as far as practicable.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners—{ DR. S. A. GHANI, B.A. LL.D.
SYED ALAM, ESQ., M.A.

1. What are the sources of Mohamedan Law? Where is there a difference of opinion between Abu Hanifa, Abu Yusuf and Imam Mohamed? State whose opinion prevails. 10

2. Explain Iddut, Khula, Mubarat. What are the main features of difference in the classification of heirs and the order of succession between the Sunni and Shia schools of Law? 10

3. State the nature of the right of the widow who is in possession of the property of her husband and whose claim for dower has not been satisfied. 10

** Or,*

Describe the effects of a divorce on the rights and duties of the husband and wife under the English and Mohamedan System of Law.

4. What are the powers of an executor under the Mohamedan Law, and how have they been affected by legislation? Does the religion of an executor affect his appointment or powers? Can a Mohamedan make a will in favour of one of his heirs? If so, how and to what extent? 10

5. State the essential conditions of a valid Waqf. Can a Mutwalli transfer his office to another in his lifetime? Under what circumstances can a Mutwalli transfer Waqf property? 10

Or,

Will a decree obtained in a suit instituted by a creditor of a deceased Mohamedan against some of the heirs only, bind the other heirs who were not made parties to the suit?

SECOND HALF.

Examiners— { S. N. DUTT, Esq., M.A., LL.B.
 { S. KHODA BUKSH, Esq., M.A., B.C.L.

6. What is the legal effect of the relation of husband and wife in English Law? State how it has been affected by recent legislation. 10

Or,

Discuss the principles laid down in *Udny v. Udny*.

7. How far has the Common Law rule—"the servant undertakes the risks incident to the service"—been modified by statutes? 10

8. State under what circumstances a master may become liable to third persons for the tortious acts of his servant. 10

Or,

Discuss the principles laid down in *Abraham v. Abraham* (9 M.L.A.).

9. State briefly the rules of Succession to the Crown at the Common Law and the modifications introduced in them by Acts of Parliament. 10

10. Enumerate briefly the duties of parents towards, and their powers over, their legitimate and illegitimate children, and the reciprocal duties of such children towards their parents. 10

SECOND PAPER

LAW OF TRANSFER INTER VIVOS.

Paper-setter—DR. SARATCHANDRA BASAK, M.A., D.L.

Candidates are required to give their answers in their own words as far as practicable

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners— { BABU SURENDRANATH GUHA, M.A., B.L.
 { DR. SARATCHANDRA BASAK, M.A., D.L.

1. Describe in what way the common law conception of mortgage was affected by equity. 10

Or,

Explain the doctrine of Tacking or Marshalling or Contribution.

2. What is an actionable claim? State the formalities prescribed by the Transfer of Property Act for transfer of an actionable claim. 10

Or,

What do you understand by covenant for title in case of sale of immoveable property, and what remedies are open to the buyer for breach of such covenant?

Or,

State and illustrate the decision in *Ishanchandra v. Bishen Sardar*, I.L.R. 24 Cal. 825.

3. State the rule of *lis pendens* with particular reference to the commencement, continuation and termination of the *lis*, and examine the fundamental principle upon which the rule is based. 10

Or,

State and illustrate the rules for determining the validity of a transfer by an ostensible owner.

4. Your client is advancing a sum of Rs. 10,000 to an illiterate pardanishin lady on the security of her properties. What steps will you take to ensure the validity of the mortgage deed to be executed by her? 10

5. Two brothers *A* and *B* mortgaged their properties to *C*. *A* died, leaving three sons *D*, *E* and *F*. *B* sold his interest in the equity of redemption to *C*. Can *D* redeem his share of the mortgaged properties without offering to redeem the shares of *E* and *F*? Give reasons. 10

SECOND HALF.

Examiners— { BABU MOHINIMOHAN CHATTERJEE, M.A., B.L.
{ BABU JYOTIPRASAD SARBADHIKARI, M.A., B.L.

6. Illustrate how a lease may be determined by forfeiture under the Transfer of Property Act. 10

Or,

What are the essentials of a valid gift under the Transfer of Property Act, and what formalities are to be adopted for making a valid gift of immoveable property under that Act?

7. Discuss the maxim "Once a mortgage, always a mortgage, and nothing but a mortgage," per Lord Davey in *Noukes & Co. v. Rice* (1902) A.C. 24. 10

Or,

State and illustrate the principle of equitable estoppel.

8. Write a short note on either of the following:— 10

(i) *Raja Kishen Dutt v. Raja Mumtaz*, I.L.R. 5 Cal. 198; (ii) *Lala Achal Ram v. Kazim Hossain*, L.R. 32 I.A. 113.

Or,

Enumerate various classes of documents of which registration is compulsory under the Indian Registration Act.

Or,

What are the effects of non-registration of documents required to be registered?

9. *A* transfers Rs. 500 to *B* on condition that he shall execute a certain lease within 3 months after *A*'s death, and if he should neglect to do so, to *C*. *B* died in *A*'s lifetime. Can *C* take the money? Give reasons in support of your view. 10

10. In a prior suit between *A* and *B* with regard to one part of an ancestral estate it was agreed to divide the whole of the ancestral estate equally between themselves. A petition was filed in that suit signed by *A* and *B* embodying the terms of the compromise; but the 10

judge was asked to give effect to the compromise in so far as it related to the portion of the estate which formed the subject matter of the suit, and the order of the judge made no reference to the other portion of the ancestral estate which consisted of land valued at Rs. 50,000. The petition of compromise was not registered. In a subsequent suit brought by *B* for recovery of his moiety of that portion of the ancestral estate which was left out in the prior suit, the claim was made on the strength of the aforesaid compromise petition. State if the said petition of compromise affected the rights of the parties in respect of the land which forms the subject of the second suit. Give reasons for your view.

Or,

Illustrate the rule of subrogation by reference to one leading decision.

THIRD PAPER.

REAL PROPERTY AND SUCCESSION.

Paper-setter—S. K. CHAKRABARTI, ESQ. M.A., B.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners— $\left\{ \begin{array}{l} \text{M. N. BASU, ESQ., M.A.} \\ \text{S. K. CHAKRABARTI, ESQ., M.A., B.L.} \end{array} \right.$

1. Explain the following sentence: "By English Law moveable goods are the object of absolute ownership: but land is the object of tenure." Show how tenures were classified 10

Or,

Trace the progress of the Fee-simple tenant's right of alienation as against the heir and as against the lord. What was the effect of the Statute of Quia Emptores?

2. What forms were required for the conveyance of freeholds at common law? What do you understand by the words: feoffment, livery of seisin, deedpoll, and indenture? 10

Or,

Explain and illustrate: "Trusts of property may be created by act of the parties or operation of law."

3. What do you understand by the mortgagor's equity of redemption? What are equitable mortgages? How do they arise? 10

Or,

Explain and illustrate: "A remainder chiefly differs from a reversion in this,—that between the owner of the particular estate and the owner of the remainder no tenure exists."

4. On a transfer of real property besides mere possession what further guarantee of title would you require? What is a guarantee of indemnity? 10

Or,

Define and illustrate the terms: Chattel real, contingent remainder, a springing use, a cestui que trust, and a donee in tail.

5. Discuss briefly the points of law involved in *Morley v. Bird*, 3 Ves. 628. 10

SECOND HALF.

Examiners—{ BABU ASUTOSH MUKERJEE, M.A., B.L.
BABU NAGENDRANATH MITRA, M.A., B.L.

6. Discuss the applicability of the Hindu Wills Act (1) as to time, (2) as to place, and (3) as to persons. 10

Or,

A Hindu inhabitant of Calcutta in 1873 makes a Will whereby he bequeaths all his property for charitable purposes. He thereafter marries and has sons and daughters born to him. He then dies leaving him surviving his widow *A*, one adult son *B*, one infant son *C*, one infant daughter *D* who is unmarried. Advise *A*, *B*, *C* and *D*, as to whether, and how far, each of them can challenge the validity of the Will, and state and discuss your grounds fully.

7. Can you obtain probate of a Will which has been lost or destroyed when (1) there is, and when (2) there is not, a copy of it in existence? 10

Or,

In what circumstances may an administrator *pendente lite* be appointed? How does he stand as regards rights and powers as compared with a general administrator?

8. Write out a proper application on behalf of your client *A* to the District Judge of *X* for probate of the Will of *B* which is intended to have effect throughout British India. 10

Or,

Discuss the powers of an executor and an administrator respectively to dispose of the property of a deceased person for the time being vested in such executor or administrator.

9. You are summoned to the death-bed of a person who desires to make his Will. What facts would you ascertain as to his competency to make a valid Will? 10

Or,

Discuss the effect of the following bequests:—

(1) A bequest is made to *A* or *B*. Both survive the testator.

(2) *A*, having three children *B*, *C* and *D*, of whom *B* and *C* are legitimate and *D* is illegitimate, leaves his property to be equally divided among "his children."

10. What is the rule of law illustrated in *Alangamonjoree v. Sonamoni*, I.L.R. 8 Cal. 637: or, *Bhagabati Barmania v. Kalicharan*, I.R. 38, I.A. 54. 10

FOURTH PAPER.

CONTRACTS AND TORTS.

Paper-setter—B. K. ACHARYYA, Esq., B.A., LL.B.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiners—{ BABU SARATCHANDRA LAHIRI, M.A., B.L.
BABU BIRENDRANATH MITRA, M.A., B.L.

1. Explain two of the following terms and expressions :—*Bailment*, 10
Pledge, *Contract of Indemnity*, *Contracts uberrimæ fidei*.

Or,

State the scope of the Indian Contract Act. Is it a complete Code ?
If not, where are we to find the law on the different kinds of contracts not dealt with by this Act ?

2. Is a contract entered into by a minor void or voidable— 10
(a) Under the English Common Law ?
(b) Under the Indian Contract Act ?

Or,

C. S. B. & Coy. published in several newspapers an advertisement to the following effect :—“ £100 will be paid by the C. S. B. & Coy. to any person who contracts the increasing epidemic of influenza, colds or any disease caused by taking cold, after having used the smoke ball, made by the advertiser, three times daily for two weeks according to the printed directions supplied with each ball. £1,000 is deposited with the Alliance Bank, Regent Street, showing our sincerity in the matter.” P, relying on these statements, bought from chemists one of the smoke balls and contracted influenza after using the ball for two weeks in accordance with the printed directions. P then claimed £100 from C. S. B. & Coy., and, on their refusal to pay, brought an action to recover the amount. Is he entitled to a decree ? Give reasons for your answer.

3. A, a builder, contracts to erect and finish a house by the 1st of January in order that B may give possession of it at that time to C, to whom B has contracted to let it. A is informed of the contract between B and C; A builds the house so badly that before the 1st January, it falls down, and has to be rebuilt by B who, in consequence, loses the rent which he was to have received from C and is obliged to make compensation to C for the breach of his contract. B sues A for recovering from him the cost of rebuilding the house, the rent lost, and compensation made to C. Discuss B's claim. Give reasons for your answer. 10

Or,

A stole a cow from B and took the cow to the adjoining village of Sultanpore where a *Hat* is held once a week. A sold the cow to C on a *Hat-day* in Sultanpore *Hat* and C bought the cow in good faith. B

then found out that his cow was in the possession of *C*, and claimed it. On *C*'s refusal to part with the cow, *B* brings a suit against *C* for the recovery of the cow. Is his claim maintainable? Will there be difference in your answer, if the case happens in England?

4. What is the meaning of "stoppage in transit," and what are the rules contained in the Indian Contract Act with reference thereto? 10

5. State the facts and the grounds of decision in *Smith v. Hughes*, 10 L.R. 6 Q.B. 497.

Or,

Discuss the effect of innocent misrepresentation upon the formation of contract.

SECOND HALF.

Examiners—{ A. S. M. LATIFUR RAHMAN, ESQ., M.A.
B. K. ACHARYYA, ESQ., B.A., LL.B.

6. Trace the history of the growth of the doctrine of consideration in the English law of contract. 10

Or,

"The Indian Contract Act has adopted this pseudoscientific view of acceptance."—Anson. Explain and discuss this statement.

7. Explain and illustrate the following:—*Damnum sine injuria* 10 and *Injuria sine damno*.

Or,

D negligently left his donkey, with its legs tied, in the highway, and *M* subsequently came past in his waggon and negligently ran over the donkey. *D* sues *M* for compensation. *M* replies that the accident would not have happened, if *D* had not left his donkey in that condition in the highway. Is *D*'s claim maintainable? State reasons in support of your view.

8. *A*, a carter, servant of *B*, while driving his master's horses, lit his pipe and, whilst doing so, ran over *M* through inattention. *M* sues *B* for compensation. Is *B* liable? Give reasons. 10

Or,

N in the town of Calcutta said that *B*, wife of *C*, was a prostitute. *B* brings an action against *N* in the Original Side of the High Court at Calcutta for defamation. The Court finds (a) that *N* the defendant spoke and published the words complained of by *B*, (b) that those words conveyed the imputation that *B* was unchaste, (c) that those words were spoken falsely and maliciously, (d) but they caused the plaintiff no actual damage whatever. Is *B* entitled to a decree? Will there be any difference in your answer, if the case had happened in London and not in Calcutta?

9. Mention and explain the conditions to be fulfilled in an action for malicious prosecution. 10

Or,

Explain and illustrate "the wrong of maintenance." Show how far, if at all, this kind of wrong is recognised in British India.

10. State and explain the Rule in *Derry v. Peek* (1889) 14 A.C. 337. 10

Or,

Quinn v. Leathem (1901) A.C. 495.

Final Examination in Law.

JANUARY 1917.

FIRST PAPER.

LAW OF LAND TENURES, LAND REVENUE AND PRESCRIPTION.

Paper-setter—BABU BRAJALAL CHAKRAVARTI, B.L.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners—{ BABU SIBCHANDRA PALIT, B.L.
BABU BRAJALAL CHAKRAVARTI, M.A., B.L.

1. What was the system of the assessment of land revenue in India previous to the days of the Permanent Settlement? 10

Or,

Who were the persons with whom the Permanent Settlement was concluded, and what were the rights conferred and the obligations imposed upon them?

2. What claims to hold land free from payment of revenue were recognised by the British Government, and what was the method of settlement in cases in which such claims were disallowed? 10

Or,

State the procedure for the summary sale of putni tenures for non-payment of rent and the course open to the putnidar for getting such a sale set aside.

3. Explain the rules regulating the rights of riparian owners to land gained by the recession of a public navigable river. 10

Or,

State the extent to which the sale of an estate, for arrears of revenue due for the same, affects the rights of persons holding land with-in it.

4. A, the owner of a share of an estate, mortgaged the same to B. For the default of A in paying the revenue, the share was sold under Act XI of 1859 and was purchased by C. Can B recover the mortgage debt out of the property in the hands of C? 10

5. *A*, a co-sharer of a joint estate, has planted a garden on a portion of the joint property. The other co-sharers have sued him for the recovery of their shares of the profit of the garden. Discuss the rights of the parties. 10

SECOND HALF.

Examiners—{ *BABU SAMATULCHANDRA DATTA, M.A., B.L.*
BABU NAGENDRANATH GHOSH, M.A., B.L.

6. State how far the Bengal Tenancy Act has curtailed the freedom of contract between Landlords and Tenants. 10

Or,

State the grounds on which, and the mode in which, the rent of an occupancy raiyat can be enhanced.

7. State the grounds on which, under the Bengal Tenancy Act, a landlord can eject his tenant. 10

Or,

State the grounds on which a tenant can deposit his rent in court, the procedure for making such a deposit, and the effect of a short deposit.

8. Define the term "easement" and distinguish between a natural right and a right of easement in regard to the use of air, light, and water. 10

Or,

Explain the different methods in which a right of way can be acquired over the land of another person, and what are the remedies open, if the enjoyment of such a right be interfered with.

9. *A*, an occupancy raiyat, has sold a portion of his non-transferable occupancy holding to *B*. Can the landlord eject *B* from the portion of the holding so purchased, or, if the landlord has managed to secure possession of the same, can *B* recover it from his hands by suit? 10

10. *A*, a tenant under the Bengal Tenancy Act, died leaving *B* and *C* as heirs. *B* got his name registered in the office of the landlord. The landlord sued *B* for arrears of rent and sold the land in execution of his decree, and it was purchased by *D*. Can *C* maintain his possession as against *D*? 10

SECOND PAPER.

EQUITY AND TRUSTS.

Paper-setter—DR. S. C. BAGCHI, B.A., LL.D.

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners—{ DR. S. C. BAGCHI, B.A., LL.D.
H. B. HANNAH, ESQ.

1. 'In the second half of the sixteenth century the jurisprudence of the (chancellor's) court is becoming settled.'—*Maitland*. Explain. 10

Or,

'It is the business of a court of equity in England to abate the vigour of the common law.'—*Blackstone*. Discuss.

2. How far is it true to say that the Statute of Uses does not apply to leaseholds? 10

Or,

Discuss the principle laid down in *Gopce Kristo v. Gunga Prosad*.

3. 'An executor or administrator merely as such is not a trustee for the legatee or next of kin.'—*Maitland*. Discuss. 10

Or,

Explain by 'concrete cases the nature of 'purpose trusts.'

4. X, a testator, gives property to his wife Y and desires her to use it for herself, her children and to remember the poor.' Is Y at all bound by the trust? 10

5. T is trustee in fee simple for A in fee simple. T dies intestate. What becomes of the legal estate vested in T? 10

SECOND HALF.

Examiners—{ P. MITTER, ESQ., B.A.
DR. S. K. GUPTA, M.A., B.L., B.LITT., PH.D.

6. 'Until lately the trustee's rights devolved upon his death just as though they were beneficial rights.' Explain. 10

Or,

'A trustee is bound to do what he is expressly bidden to do by the terms of the trust.' Discuss.

7. State shortly what are the remedies of the creditor in equity. 10

Or,

'The defence of legal estate by *bona fide* purchase for value without notice is not a merely personal defence.'—*Maitland*. Illustrate this by concrete examples.

8. 'The situation of a mortgagee in possession is far from an eligible one.'—Explain. 10

Or,

Explain the nature of an injunction and give an example of its form.

9. X, having power to appoint a fund which in default of appointment is to go to B, exercises the power in favour of C and gives other benefits to B. What is the position of B?

10. A sells to B; B objects to A's title; urges that the estate belongs to X; A brings a suit against B, and the court compels B to complete the purchase. Later on X appears and sues B for the land. How would you defend B?

THIRD PAPER.

LAW OF EVIDENCE.

Paper-setter—DR. DWARKANATH MITRA, M.A., D.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners—{ BABU JOGINCHANDRA DUTT, M.A., B.L.
BABU HEMENDRANATH SEN, B.L.

1. (a) Enumerate the conditions which must concur in order to constitute a matter *res judicata*. 10

(b) A suit was brought in the court of a Subordinate Judge by a Hindu governed by the Mitakshara School of Hindu Law against the widow of his deceased brother, the issue being whether at the death of the latter the ownership of the brothers was joint or separate. Previous to the institution of this suit the widow had instituted a suit for rent in the Munsiff's Court against a tenant; in that suit for rent the surviving brother was on his own application made a party defendant. The Munsiff tried the same issue in the rent suit, which was subsequently raised before the Subordinate Judge, and decided the issue in favour of the widow. Did the decision of the issue in the Munsiff's court constitute *res judicata* in her favour?

Or,

(a) "A verdict against a man suing in one capacity will not stop him when he sues in another distinct capacity and in fact is a different person." Illustrate.

(b) "In order to make the decision of one court final and conclusive in another court, it must be decision of a court which would have had jurisdiction over the matter in the subsequent suit in which the first decision is given in evidence as conclusive." Illustrate this by reference to one leading decision.

2. (a) What is the effect of a private transfer of property which has been attached in execution of a decree for money on claims enforceable under the attachment? 10

(b) In execution of a decree obtained by *A* against *B* certain property belonging to *B* is attached. During the pendency of the attachment *B* mortgages the property to *C*. The property is then sold in execution and is purchased by *D*. Is *D* entitled to take the property free from the mortgage?

Or,

(a) Attachment does not confer any title on the attaching creditor, it merely prevents private alienation of the property attached. Illustrate this. 10

(b) *B*'s property is attached in execution of a decree obtained by *A* against him. While the attachment is pending, *B* sells the property to *C*. *B* then pays the amount of the decree into court. Is the sale to *C* valid?

3. State the grounds on which an appeal is allowed by the Code of Civil Procedure from a decree passed in appeal by any court subordinate to the High Court. Has any court in India or elsewhere power to add to or enlarge those grounds? 10

Or,

Indicate the cases in which and the grounds on which the High Court can interfere in the exercise of its revisional jurisdiction as conferred on it by S. 115 of the Code of Civil Procedure. Can the High Court interfere in its revisional jurisdiction where the decision of the lower court is vitiated by a mere error of law not affecting the jurisdiction of the court?

4. (a) On what grounds may a sale of immoveable property in execution of a decree be set aside? At whose instance may such a sale be set aside? 10

(b) Does an appeal operate as a stay of proceedings in execution of a decree or order appealed from?

5. How is the term "decree" defined in the Code of Civil Procedure? Can any order of dismissal for default be regarded as a "decree" under the Code? Distinguish between *preliminary* decree and final decree. When any party aggrieved by a preliminary decree after the commencement of the Code of Civil Procedure 1908 does not appeal from such decree, is he precluded from disputing the correctness of the preliminary decree in any appeal which may be preferred from the final decree?

SECOND HALF.

Examiners—{ DR. JADUNATH KANJILAL, M.A., D.L.
BABU RAJENDRA PRASAD, M.A., M.L.

6. Discuss the principle upon which the rule of "estoppel" as laid down in S. 115 of the Indian Evidence Act rests. Give illustrations. 10

Or,

State the case of *Sarat Chandra De v. Gopal Chandra De*, I.L.R. 20 Cal. 896 (P.C.), and formulate the proposition of law therein laid down.

7. "The general rule of English law is that the confession of an accused person is only evidence against himself and can not be used against others." An exception to this rule has been introduced by the Indian Evidence Act. State what that exception is. Give illustrations. 10

Or,

(a) When can a confession made by any person while he is in the custody of the police officer be proved as against such person?

(b) A is on his trial for the murder of C. There is evidence to show that C was murdered by A and B, and that B said, 'A and I murdered C.' Can the statement be taken into consideration by the court against A?

8. Discuss the principles regarding the position of an assignee of a minor with reference to the Statute of Limitations as laid down in the Full Bench case of Rudrakanta Sarma reported in I.L.R. 9 Cal 663. 10

9. (a) A incurs a debt to a firm of which B, C, D are partners. B is insane, and C is a minor. D can give a discharge of the debt without the concurrence of B and C. Does time run against B, C, D, for the purposes of limitation? 10

(b) When is a fact said to be (1) proved, (2) disproved, and (3) not proved?

10. By Sec. 92 of the Indian Evidence Act no evidence of any oral agreement or statement can be admitted as between the parties to any such instrument or their representatives in interest for the purpose of contradicting, varying or adding to or subtracting from its terms subject to the exceptions contained in the several provisos. Illustrate this by reference to one leading decision. 10

Or,

An estate called "Rampur Tea Estate" is sold by a deed which contains a map of the property sold. Can the fact that land not included in the map has always been regarded as part of the estate, and was meant to pass by the deed, be proved?

FOURTH PAPER.

CRIMINAL LAW.

Paper-setter—BABU BANKIMCHANDRA SEN, M.A., B.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners—{ BABU BANKIMCHANDRA SEN, M.A., B.L.
BABU HARAPRASAD CHATTERJEE, M.A., B.L.

Either,

1. Discuss the legality of the sentences in the following cases:—

(a) *A* is convicted of theft and sentenced to a fine of one hundred rupees, in default to imprisonment for one year, the offence of theft being punishable with a maximum of three years' imprisonment, or with fine, or with both. 3

(b) *A* is convicted on a charge of allowing a riot to be committed on his land, which is an offence punishable with fine only; and sentenced to a fine of five hundred rupees, in default to imprisonment for one year. 3

Or,

A seizes *B* by the hand, while *B* is passing along the road, and slaps him. *A* is tried for wrongful restraint and using criminal force. Can he be punished separately for the two offences? Give reasons. 6

2. *A* with six others endeavours to enter *B*'s garden to plunder fruits. The gate-keeper opposes the party, whereupon *A* strikes him with his clenched fist. *A* with the rest of the party then effects a forcible entry into the garden and gathers a number of ripe fruits and spoils a number of unripe ones. *A* then leaves the garden with the ripe fruits. 14

What offence or offences has *A* committed, and why?

3. Distinguish between 'Criminal Misappropriation' and 'Criminal Breach of Trust.' Give examples of each. 10

Or,

To what extent is grave and sudden provocation a good plea against a charge of murder? Illustrate your answer by an example.

4. Discuss briefly the principles of law laid down in either of the following cases:— 10

(1) *Reg. v. Sricharan Chungo*, I.L.R. 22 Cal. 1017.

(2) *Reg. v. Gangadhar Tilak*, I.L.R. 22 Bom. 112.

5. Explain the meaning of the term "Malice aforethought" as summarised by Stephen. 10

SECOND HALF.

Examiners— { P. N. DUTTA, Esq., M.A., B.L.
J. W. CHIPPENDALE, Esq., M.A., B.L.

6. Under what circumstances can a magistrate take action for the removal of a public nuisance, and what magistrates are competent to take such action? 10

Or,

When can a magistrate take action to prevent disputes regarding immoveable property? What magistrates are competent to take such action?

7. What are the different modes in which a magistrate can take cognisance of an offence? Does any of them impose any restriction on the power of such magistrate to try the offence subsequently? 10

Or,

Under what circumstances does the law permit a joinder of charges? What is the general rule in this behalf?

8. Discuss the legal effect of the procedure in *any two* of the following cases:— 10

(1) A magistrate commits an accused to the Court of Session. It appears that he had no power to commit.

(2) A magistrate tries and convicts an accused. It appears that the place where the offence was committed was outside the local jurisdiction of the magistrate.

(3) A Sessions Judge tries an accused with the aid of a jury. It appears that the offence was triable with the aid of assessors.

(4) A Sessions Judge tries an accused with the aid of assessors. It appears that the offence was triable by jury.

9. Give a brief narrative sketch of the general provisions relating to summary trials. Does an appeal lie from a conviction under the summary procedure, in any case? 10

10. Give a brief sketch of *Palmer's Case*. 10

Or,

Explain and illustrate the rule laid down in *R. v. Ganvuri Lal*, L.L.R. 16 Cal. 206.

Preliminary B.L. Examination.

JULY 1917.

FIRST PAPER.

JURISPRUDENCE.

Paper-setter—PRAMATHANATH CHAUDHURI, ESQ., M.A.,
BAR.-AT-LAW.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners—{ PRAMATHANATH CHAUDHURI, ESQ., M.A.,
BAR.-AT-LAW.
D. N. MITTER, ESQ., B.Sc., LL.B.

Candidates are permitted to attempt FIVE questions only.

1. State and criticise Savigny's analysis of a contract. 10
2. Analyse the legal conception of possession and explain the relation between possession and ownership. 10
3. Explain the difference between Tort and Crime. Illustrate your answer by special reference to Defamation. 10
4. State and criticise the Austinian conception of Law. 10
5. Analyse the notion of Positive Law, briefly explaining its constituent elements. 10
6. Explain fully what is meant by—"International Law is the vanishing point of jurisprudence." 10
7. Write short notes on any two of the following legal terms:— 10
 - (a) Servitude.
 - (b) Emphyteusis.
 - (c) Usufruct.
 - (d) Adjective law.

SECOND HALF.

Examiners—{ BABU KARUNAMAY BASU, M.A., B.L.
BABU BIJAN KUMAR MUKERJEE, M.A., B.L.

Candidates are permitted to attempt FIVE questions only.

8. "All property is founded on Adverse possession ripened by prescription." Explain and examine. 10

9. Give a sketch of the history of the Law of Testaments amongst Romans. 10
10. Describe shortly the origin and development of *Jus Gentium* and *Jus Naturale*. 10
11. "The penal law of ancient communities is not the law of crimes, it is the law of wrongs." Explain. 10
12. State briefly the nature and the history of *Patria Potestas* in Roman Law. 10
13. State the chief features of the English Constitution. 10
14. Give a short account of any two of the following cases, stating the principles of constitutional law illustrated therein:— 10
 - (a) *Rex vs. Pinney*.
 - (b) *Beatty vs. Gillbanks*.
 - (c) *Entick vs. Carrington*.
 - (d) *Ex parte Marais*.

SECOND PAPER.

ROMAN LAW.

Paper-setter—S. C. RAY, ESQ., B.A., LL.B.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer only FIVE questions in each half.

FIRST HALF.

Examiners— { S. C. RAY, ESQ., B.A., LL.B.
BABU SASANKAJIBAN RAY, M.A., M.L.

1. Write short notes on (1) the Law of Citations, and (2) *Edictum Perpetuum*, and describe their effect on the development of the Roman Law. 10
2. Give illustrations of the different ways by which *patria potestas* could be terminated. 10
3. Compare *pignus* with *hypotheca*, and describe some of the incidents of the latter. 10
4. If you were advising as to the validity of a Roman will (in Justinian's time), what questions would you consider as to the capacity of (a) the testator, (b) the witnesses, (c) the heir. 10
5. Describe the incidents of any two of the different kinds of contracts in which delivery on one side was considered a ground for enforcing them. 10
6. State the important rights and duties of a tenant in the case of an ordinary letting on hire. 10
7. Describe shortly the three stages of development of the procedure in actions, up to the time of Justinian. 10

SECOND HALF.

PRINCIPLES OF LEGISLATION.

Examiners—{ S. M. BASU, ESQ., M.A., LL.B.
M. N. KANJILAL, ESQ., M.A., LL.B.

8. It is said that behind the legislation of the 19th century we can find the ideal of Liberty. How then do you account for the fact that during this period, there has been a large increase of State control over the citizen? 10

9. "A new chivalry (as regards the position of women) is slowly developing amongst us." Illustrate this by the trend of modern legislation and show to what this is due. 10

10. It is said that the development of a new social conscience has created a "divine discontent." How far is this borne out by the legislation of the 19th century? 10

11. On what grounds would you restrict the sphere of free competition in trade? 10

12. Would you recognise any rights of the individual as being superior to the interests of society? 10

13. Write a note on the rights of the individual to equality of opportunity. 10

14. What suggestions can you make to meet the modern problem of Un-employment? 10

THIRD PAPER.

HINDU LAW.

Paper-setter—DR. DWARKANATH MITRA, M.A., D.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners—{ BABU RAJENDRA PRASAD, M.A., M.L.
BABU BAIDYANATH NARAYAN SINHA, M.A.,
M.L.

1. The adoption of an only son having taken place in fact, is such adoption null and void under the Hindu Law? 10

Discuss this question with special reference to a leading case.

Or,

Discuss the question whether, under the Hindu Law current in the Bengal School, the son of a paternal uncle's daughter is entitled to succeed to the estate of a deceased Hindu, if no nearer heirs are forthcoming. Refer to a leading case on the subject.

2. "A decision in favour of an adoption, in a suit in which it was in dispute, is *prima facie* evidence of the fact of adoption, even as against persons who were no parties to the suit." Discuss the validity of this proposition. 10

Or,

The Statute of Limitations will be a bar in some cases to an attempt to set aside a disputed adoption; that is, it will bar a suit to recover property held under colour of adoption? From what time does the Statute run?

3. "By the Hindu Law the freedom of the son from the obligation to discharge the father's debt has reference to the nature of the debt and not to the nature of the estate whether ancestral or self-acquired by the creator of the debt." Develop. 10

Or,

"The general rule is that no member of an undivided family governed by the Mitaksara Law can by any process appropriate to his own benefit a larger portion of the family property than the share he would obtain on partition." State the exceptions to this general rule.

4. "The power of the Manager of an infant heir to charge an estate not his own under the Hindu Law is a limited and qualified power." Examine this proposition with special reference to a leading case on the subject. 10

5. R, a Hindu governed by the Dayabhaga School of Hindu Law, died possessed of considerable estate. R left behind him a widow and a brother. The widow succeeded to the estate of her husband and subsequently became unchaste. The brother, as the next taker after the widow, sued to recover possession from the widow on the ground that she had forfeited her husband's estate by reason of her unchastity. Can the brother succeed in recovering the estate? Refer to a leading case on the subject. 10

SECOND HALF.

Examiners— { BABU MUKUNDANATH RAY. B.L.
BABU SIBAPRASANNA BHATTACHARYYA. B.L.

6. Does property inherited by a woman become her *stridhan*? Discuss this with special reference to a leading case on the subject. 10

Or,

Formulate the proposition of law laid down in the leading case of *Bhagwan Din Dubey v. Myna Bai*, 11 Moore's Indian Appeals 487.

7. Does the *stridhan* property of a Hindu woman, who has adopted the life of a prostitute, pass upon death, in the absence of nearer heirs, to her brother's son as an heir under the Bengal School of Hindu Law? Answer this question with special reference to a leading case on the subject. 10

Or,

State the facts of the Full Bench case of *Harilal Singha v. Tripura Charan Ray*, I.L.R. 40 Cal. 650, and indicate the proposition of law laid down therein.

8. Is the alienation by way of mortgage by a Hindu widow of a portion of the estate of her husband, without any proved legal neces- 10

sity but with the consent of the next reversioner for the time being, valid and binding on the actual reversioner, who is not the heir of the next reversioner? Examine this with reference to a leading case.

Or,

Discuss the principles of law regarding the validity of a partial surrender by a Hindu widow of her husband's estate as laid down in the case of *Debi Prasad v. Golap Bhagat*, I.L.R. 40 Cal. 721.

9. "A man cannot create a new form of estate or alter the line of succession allowed by law for the purpose of carrying out his own wishes or policy." Examine this statement of the law with special reference to the leading case of *Tagore vs. Tagore*, 9 B.L.R. 377 (P.C.). 10

10. A daughter, inheriting a large estate belonging to her father, ordered a quantity of lime for the purpose of making repairs to certain houses on the estate; the repairs were completed, but she died without paying the price of lime supplied on credit. Can the lime merchant successfully recover the money from the estate in possession of the reversionary heir? 10

Intermediate Examination in Law.

JULY 1917.

FIRST PAPER.

MOHAMEDAN LAW AND THE LAW RELATING TO PERSONS.

Paper-setter—S. KHUDA BUKSH, ESQ., M.A., B.C.I.

Write the answers to the two halves in SEPARATE books.

The figures in the margin indicate full marks.

FIRST HALF.

Examiners—{ S. KHUDA BUKSH, ESQ., M.A., B.C.I.
A. S. M. LATIFUR RAHMAN, M.A.

1. What is the Law as to revocation of gifts ? How does the Shiah Law differ from the Hanafi Law. 10

A gift of a house is made to A *for life*, and after his death to his brother. What is its effect (a) under the *Hanafi* and (b) under the *Shiah* Law ? Give your reasons for the answer.

2. What is the extent of testamentary power allowed under the Mohamedan Law ? Is consent of heirs necessary to validate a legacy ? Compare the Sunni and the Shiah Law on the subject. 10

3. Define "waqf." How may it be created ? What are the limits of power to dedicate property by way of waqf ? 10

A Mohamedan executes a document purporting to be a deed of *waqf*, by which it is provided that Rs. 75 arising out of the income of certain property, should be distributed annually among the poor, that Rs. 100 should be paid every year to each of his four sons, that on the death of any of his son's his share should be paid to his "successive descendants," that the surplus income should be accumulated and added to the endowed property, and that on total failure of all the descendants of the settlor, the whole of the income should be distributed among "the poor, the indigent and the beggars residing in the town of Dacca."

Are the provisions in favour of settlor's family valid ? Give reasons for your answer.

4. What is Pre-emption ? Who may claim pre-emption ? What forms must you observe to entitle you to claim the right of pre-emption ? 10

Or,

Can a non-Muslim be appointed executor of a Mohamedan's will ? Are his acts valid in Law ? Is an executor of a Mohamedan will bound to take out probate ?

5. What are the conditions and limitations under which, according to Mohamedan Law, acknowledgment of parentage confers the status of legitimacy on the person acknowledged? 10

A Mohamedan lives with a Buddhist woman and has a child by her. He acknowledges parentage of the child: what is the effect of such acknowledgment? Give reasons for your answer.

Or,

Can a minor who has been contracted in marriage by the other far grandfather repudiate the marriage in attaining majority? How are divorces by *Khula* and *Muharat* effected? Discuss the rights and obligations of the parties under such divorces.

SECOND HALF.

Examiners—{ S. P. VARMA, ESQ.
SREENARAYAN SAHAY, ESQ.

6. Has the Court any jurisdiction to remove parents from the guardianship of their children? Name some of the circumstances under which the Court can interfere. 10

7. State shortly the privileges and incapacities of minors. Is a contract entered into by a minor void or voidable? 10

A, while yet a minor, borrowed money from B to celebrate his marriage, and on attaining majority executed a bond for the amount borrowed. Can B maintain a suit against A on the bond? Give reasons for your answer.

8. (a) Discuss how far the English Common Law doctrine that the servant undertakes the risks incident to the service, including those arising from the negligence of a fellow-servant, has been modified by legislature. 10

(b) B dismisses A, his servant, for wilful disobedience. A subsequently requests B to give him a character. B gives him a false character and A thus loses the chance of an appointment which C provided him. What are A's remedies against B? Discuss the law on the subject by reference to leading cases.

Or,

A sends out his servant B with a carriage and horse. B meets C's carriage and horse and strikes C's horse, in order to make C's driver draw aside and let him pass. Is A liable to C?

9. A suit is brought to annul a marriage; upon what grounds can it be maintained and resisted under the English and the Muslim Law? Can a third party bring such a suit under either system? 10

Or,

Discuss briefly the law relating to the essential conditions of a valid marriage with English and Mohamedan systems.

SECOND PAPER.

LAW OF TRANSFER INTER VIVOS.

Paper-setter—DR. SURENDRANATH SEN, M.A., LL.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners— { BABU BARANGSIBASI MUKERJEE, M.A., B.L.
 { BABU NAGENDRANATH GHOSH, M.A., B.L.

1. Differentiate between *vested* and *contingent* remainder. Which 10
of the two is transferable, and why ?

Or,

Enumerate the kinds of property which are not transferable under the Transfer of Property Act. Give reason for the prohibition in each case.

2. Explain the law enunciated in *Tailby v. Official Receiver*. 10

Or,

Explain the law laid down in *Jadunath v. Ruplal*

3. Enumerate the instances in which a transferor of real property 10
passes to his transferee greater rights than those possessed by himself.

Or,

Explain and illustrate the rule as to the determination of a lease (1) by *forfeiture* and (2) by *implied surrender*.

4. A mortgages Blackacre and Whiteacre to B. A subsequently 10
sells Blackacre to C. Can C insist upon B's selling Whiteacre first to recover his mortgage-money before selling Blackacre ? State your reasons.

5. A mortgage-deed having been passed against several co- 10
mortgagors, one of them pays the decretal amount and redeems the entire property. Upon what principle is the latter entitled to claim contribution from his co-mortgagors ? Is he entitled to claim a charge on the property for contribution ? State your reasons.

SECOND HALF.

Examiners— { BABU BIRAJMOHAN MAJUMDAR, M.A., B.L.
 { BABU MOHINIMOHAN CHATTERJEE, M.A., B.L.

6. What are the rights of a party who has been deprived of the 10
thing received in exchange by reason of a defect in the title of the other party ?

Or,

Illustrate the difference between a charge and a mortgage.

7. How is the question of priority among several assignees of the same actionable claim to be determined? Is there any positive provision in the Transfer of Property Act relating to this? 10

Or,

Are the following *actionable claims* :—

(a) A share in partnership.

(b) The vendor's right to receive the unpaid purchase-money after the sale has been completed?

Give reasons for your answer.

8. X, a party to an exchange, loses a portion of the lands, which he got on exchange from Y. Can X recover an equivalent portion of the lands which he has given to Y? Give your reason. 10

What are the remedies open to X? 5

9. Is registration of the following compulsory under the Indian Registration Act :— 8

(a) a deed of gift of immoveable property worth rupees fifty, (b) an agreement with reference to property which has no value, (c) an agreement to pay an annuity of rupees five hundred, and (d) a will?

State your reasons.

Or,

State the law relating to (a) the place of registration of documents and (b) the persons by whom documents may be presented from registration.

10. X, a lessee of immoveable property, under an unregistered lease executed by Y sues the latter for possession of the property. During the pendency of this suit, Y executes a registered lease about the same property in favour of Z. Is the lease of Z entitled to priority? State your reasons. 7

THIRD PAPER.

REAL PROPERTY AND SUCCESSION.

Paper-seller—B. L. MITTER, ESQ., M.A., B.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners—(N. C. SEN, ESQ., M.A.
(DR. S. K. GUPTA, M.A., B.L., B.LITT., PH.D.

*Answer FIVE questions but not more than THREE out of
Nos. 1, 2, 3, 4, 5, 6.*

1. What is the distinction drawn in English law between property in land and property in moveable goods? Explain: "the most absolute property in land that a subject can have is but an estate." 10

2. What is the meaning of— 10

(a) equity of redemption,

(b) power of appointment.

- (c) write of elegit,
- (d) civil death,
- (e) legal memory ?

3. What is the right of a tenant in tail to bar the entail ? Are there any, and if so what, restrictions to such right ? How can an estate tail be barred ? 10

4. How can a freehold estate in possession be transferred ? What was the rule at common law before the Real Property Act ? Was there any, and if so what, distinction at common law between corporeal and incorporeal hereditaments in the formalities required for their transfer ? 10

5. What is meant by incorporeal hereditaments ? State the different kinds of incorporeal hereditaments. 10

6. What are a creditor's remedies after the debtor's death, at law and under the equitable jurisdiction of the Court ? 10

7. A grant is made to A for life and after his death to his children who may attain twenty-one and the issue *per stirpes* of such of them as shall die under that age. What is the effect of the grant ? Give reasons. 10

8. A verbally agreed to take a lease of a house from B for a term of 10 years from the 1st January 1915, and entered into possession of the house and paid rent as arranged. No lease is executed. What is A's position ; can he insist on occupying the house for the full term of 10 years ? Would it make any difference if A be an infant ? Give reasons for your answer. 10

SECOND HALF.

Examiners— { BABU GUNADACHARAN SEN, M.A., B.L.
 { DR. JADUNATH KANJIDAL, M.A., D.L.

Answer FIVE questions, but not more than THREE out of Nos. 9, 10, 11, 12, 13.

9. What are the essential characteristics of a will ? How does a will differ from a gift *inter vivos* ? 10

10. What is the meaning of— 10

- (a) vesting of legacy,
- (b) executory bequest,
- (c) residuary legatee,
- (d) testamentary guardian,
- (e) privileged will ?

11. Can the testamentary capacity of a person ever remain suspended for a time and revive after the expiry of such time ? Is there any fixed standard of testamentary capacity ? 10

12. What is the difference in India between the 'heir' and the 'legal representative' of a deceased person ? State what property of a deceased person vests in his legal representative, and when. 10

13. State the order in which an executor should make payments and distribute the testator's assets. 10

14. By his will A, after some pecuniary legacies, gives the rest and residue of his estate to his son B, and appoints B his sole executor. The will provides that B shall not sell or mortgage the family dwelling-house, which forms part of A's estate. B takes out probate of the will. Can B sell the house and pass a good title to the purchaser ? What would be B's rights with regard to selling the house, if A died intestate and B took out letters of administration to A's estate ? 10

15. A testator bequeaths a diamond ring to the eldest son of *A* to be given to him after the death of the testator's widow *B*. At the death of the testator *A* had no son, but a son *C* is afterwards born to him during the life of *B*, and is alive at *B*'s death. Is *C* entitled to the legacy? Would it make any difference, if the will is governed by the Succession Act or the Hindu Wills Act? Give reasons for your answer. 10

16. A Hindu testator made his will in 1897 whereby he gave a house to his sons *A* and *B* for their lives, and after the death of the survivor of them to his grandsons (being sons of *A* and *B*), born and to be born, in equal shares absolutely. At the date of the will *A* had one son *P*, and *B* had two sons *X* and *Y*. The testator died in 1900 when *A* had two sons *P* and *Q* and *B* had three sons *X*, *Y* and *Z*. Both *A* and *B* survived the testator. *A* died in 1902 leaving three sons *P*, *Q* and *R*. *B* died in 1905 leaving two sons *Y* and *Z*, his eldest son *X* having died in 1904. At the death of *B* there were in existence *P*, *Q* and *R* and *Y* and *Z*, and they are all alive. Who are entitled to the house, and in what shares? Give reasons for your answer. 10

FOURTH PAPER.

CONTRACTS AND TORTS.

Paper-setter—J. W. LANGFORD JAMES, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners—{ J. C. DUTT, ESQ., M.A., B.L.
J. BAROOAH, ESQ.

1. When does the property in goods pass from the seller to the buyer (a) under a contract for specific ascertained goods, (b) under a contract for the sale of goods unascertained at the time of making the contract. 10

Or,

Define and distinguish "fraud" and "misrepresentation." How do they affect the rights of parties to a contract? 10

2. *A* has agreed to sell to *B* 6,000 tons of coal deliverable by monthly instalments of 500 each. After making one delivery *A* writes to *B*: "please note that I refuse to deliver you any further coal under the contract for 6,000 tons." What are *B*'s rights and remedies? Can *A* under any circumstances thereafter claim a right to fulfil the contract? 10

3. Write a short note upon the following:—

(a) Demurrage, (b) Stoppage in transitu, (c) Rescission of contract, (d) Discharge of surety. 10

Or,

What are the rights of the buyer of goods with a warranty if the warranty is broken, (a) where a specific article is sold, (b) when the contract was for goods not then ascertained.

4. *A* and *B* each deliver to a Railway Company at one of its stations two similar consignments each of 50 bales of jute for transport to Calcutta by rail and steamer. During the transit *A*'s consignment is sunk in a cyclone (i.e. by an act of God). *A* subsequently applies at Calcutta for delivery of his goods, and by mistake the Railway Company delivers *B*'s consignment to *A*, who takes it knowing that it is not his. *B* thereafter applies to the Railway Company for the goods. Discuss the rights and liabilities of the three parties, giving reasons for your views

5. Give a short précis of the facts or the decision in

either,

Shaik Kalu v. Ram Saran Bhagat, 13 C.W.N. 388

or,

Cundy v. Lindsay, L.R. 3 A.C. 459.

SECOND HALF.

Examiners—{ DR. NARESIHNDRA SEN GUPTA, M.A., D.L.
BABU RAJENDRANATH GUHA, M.A., M.L.

6. *B*, relying on certain statements in the prospectus of a Company, applies for and is allotted shares in the Company. The statements are untrue. *B* brings a suit for deceit against the Directors. What must *B* prove in order to succeed?

7. In an action for slander the plaintiff must prove special damages. What is the reason for this difference between slander and libel? Are there any, and if so what, exceptions to this rule?

8. *A*, in search of employment, applies to *B* for a post as clerk. *B* makes enquiries of *X*, who had formerly employed *A*. *X* replies: "I have reason to know that *A* is dishonest. One does not like saying that about any one, but it is the truth." *A* sues *X* for libel. What defences (if any) are available to *X*?

Or,

B is staying at a hotel. Certain repairs are being carried out in the hotel by a competent contractor (*C*) who has been engaged by the hotel-keeper to do the repairs. *B* trips over an obstruction carelessly left by one of *C*'s workmen and breaks his leg. Has *B* any remedy, and against whom? Upon what principles of law do you rely for your answer?

9. Discuss the defence of contributory negligence. In an action by *R* against *S* for damages in an accident which *R* alleges was caused by the negligence of *S*, it is proved that *S* was negligent, but *S* proves that *R* was also negligent. Can *R* still succeed?

10. Under what circumstances does a window become an "ancient light"? What rights has the owner of an "ancient light"? How can he protect his rights?

Or,

What is meant in law by "nuisance"? Can a man acquire a right to commit nuisance? If so, how?

Final Examination in Law.

JULY 1917.

FIRST PAPER.

LAW OF LAND TENURES.

Paper-setter—BABU BEPINBIHARI GHOSH, M.A., B.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners-- { BABU SURENDRANATH GUHA, M.A., B.L.
BABU GOPALCHANDRA DAS, M.A., B.L.

Candidates are required to attempt five questions only, which must include questions 6 and 7.

1. Write a short note with regard to the rights of the zemindars to the soil previous to the Permanent Settlement, and the reasons which led the Government to make the settlement permanent. What was the immediate effect of the Permanent Settlement on the condition of the cultivators ? 10
2. State what rights were conferred on or declared to be vested in the zemindars under Regulation I of 1793 with regard to the lands permanently settled ; what powers were retained by the Government under the Regulation, and what measures were taken for assessment on lands held revenue-free under invalid titles ? 10
3. What is the difference between a *putni* tenure and other permanent mokarari tenures ? What are the rights acquired by a purchaser of a *putni* at a sale under Regulation VIII of 1819 ? 10
4. State what the rights of a taluqdar of the second degree are when he makes a payment to stay the sale of a *putni* under Regulation VIII of 1819. What is the remedy of the owner of a *putni* if it is sold under the Regulation, but not quite in accordance with the provisions laid down in it, and against whom ? 10
5. What is meant by a several fishery ? "The fish follow the river and the fisherman follows the fish."—Illustrate this expression. What is the rule in England as regards fishery rights, when a river changes its course and cuts through the lands of a neighbouring owner ? Has the rule been applied here ? If not, state the reasons why it has not been done. 10

6. An entire estate was sold for arrears of revenue. One of the co-sharers who had refused to pay his share of the revenue and for whose default the estate was sold, purchased it *benami* in the name of his servant, who obtained a certificate of title from the Collector. Discuss the effect of the sale, (1) as regards the other co-sharers who dispute the right of the purchaser under the sale, and (2) as regards under-tenure holders and encumbrancers. 10
7. A, B and C are owners in equal shares of extensive coal-fields comprising several hundred bighas. A and B jointly dug pits for raising coal on a part of the property, C having refused to join them. A and B raised coal from about 50 bighas and made large profits. C wanted a third share of the profits. Discuss the rights of the co-owners with regard to the property and the profits made by A and B. 10

SECOND HALF.

Examiners— { BABU HIRALAL CHAKRABARTI, M.A., B.L.
 { BABU UMESCHANDRA GHOSH, M.A., B.L.

Candidates are permitted to select any five questions.

8. An occupancy raiyat holds his land at a rent of Rs. 32 a year. He entered into a contract with his landlord to pay an enhanced rent of Rs. 50 a year. The contract is not in writing, but the tenant paid rent at the enhanced rate continuously for more than 3 years, and then refused to pay at that rate. At what rate is the landlord entitled to recover rent? 10

9. On what grounds may an occupancy raiyat be ejected? What steps have to be taken by the landlord in order to eject an occupancy raiyat? 10

An occupancy raiyat entered into possession of his holding after the passing of the Bengal Tenancy Act under a contract that he would cultivate indigo on his land, on failure of which he would be liable to be ejected. Can the landlord eject him on his refusal to cultivate indigo?

10. On what grounds may a tenant deposit his rent in court? What would be the effect of a receipt granted by the court on a deposit having been made where the amount of rent payable is disputed, and it is found subsequently that the amount deposited fell short of the full amount due? 10

11. What is an easement of necessity, and how is it acquired? 10

A person has a house on a public road divided into outer and inner parts. He has to pass over the outer part in order to get into the inner part. He sells the outer part. Can he claim an easement of necessity over the position sold, because he has no other way of getting into the inner portion?

12. A, the owner of a piece of land, has a right of easement of discharging surplus water from his land on the land of B, which rendered the land of B practically useless. B after incurring considerable expense discovered a mode of utilizing the water thrown on his land and for more than 20 years grew a valuable crop on it which mainly depended on the surplus water discharged from A's land. A suddenly stops discharging water from his land and B's crop failed in consequence, causing him great loss. Did B acquire any right under the circumstance, and has he any remedy against A? 10

13. Write a short note on the case of *Amulyaratan v. Tarininath*, 42 Cal. 254, stating the question decided and examining the reasons for the decision. 10

14. Is there any mode of acquisition of an easement other than under the provisions of the Limitation Act? If so, what difference does it make if the right is not acquired under the Limitation Act? 10

A person has to go over the land of his neighbour and build a scaffolding on it in order to make repairs to his own house. He did so for the first time more than 25 years ago, and again at intervals of 4, 5 or 6 years whenever occasion arose, till within 2 years before suit, when he was resisted from doing so. Has he acquired any right of easement?

SECOND PAPER.

EQUITY.

Paper-setter—DR. S. C. BAGCHI, B.A., LL.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners—{ M. N. BASU, ESQ., M.A., BAR-AT-LAW.
DR. S. C. BAGCHI, B.A., LL.D.

1. Examine carefully Maitland's remarks on the alleged conflict between the rules of equity and the rules of the common law. 10

2. Write a short note on the scope of the Statute of Uses. Did the decision in *Tyrell's case* influence the Chancellor in favour of secondary uses? 10

Or,

Technical words are to be technically construed, but a trust can be created by the most untechnical of words.—*Mailland*. Illustrate this statement by concrete instances.

3. State briefly the steps in the enforcement of Trusts. 10

Or,

Discuss the principle laid down in the case of *In re Nisbet and Patts' Contract* (1906, 1 Ch. 386).

4. A testator, tenant in fee simple of Whiteacre, Blackacre and owner of twenty shares in a limited company, makes his will as follows: I give Blackacre to A. I declare that my debts shall be a charge on the rest of my real estate. I give £100 to B and the residue of my personalty to my cousins F and G in equal shares. G dies before the testator, who dies leaving K his sole next of kin and H his heir. In what order are the assets to be applied for the payment of the testator's debts? 10

5. A man agrees to buy land at more than its market value. The seller refuses to perform his part of the agreement. What damages, if any, is the purchaser entitled to? 10

SECOND HALF.

Examiners—{ S. N. DATTA, ESQ., M.A., LL.B.
P. MITTER, ESQ.

6. Explain the maxim 'once a mortgage always a mortgage.' 10

Or,

Discuss shortly section 51 of the Conveyancing Act, 1881.

7. Y mortgages his land to X. For some reason or another X wishes to foreclose this mortgage. How should X proceed against Y? 10

8. 'A very large part of the whole province of Tort is a proper field for the injunction.' Explain. 10

Or,

What part does injunction play within the province of Contract?

9. Land is held upon trust for sale and the proceeds are to be divided between A, B and C. Can A keep his undivided third of the land while the remainder is sold according to the trust? What would be the answer in a converse case, viz. when money is held on trust for the purchase of land to be conveyed to A, B, C as tenants in common in fee? 10

10. X, a widow, is the administratrix of her late husband. The estate is insolvent. Can X retain out of the assets a sum of money which she had lent him to be used in business? What would be the answer on the supposition that the husband had been made bankrupt in his lifetime? 10

THIRD PAPER.

EVIDENCE AND CIVIL PROCEDURE.

Paper-setter—DR. SARATCHANDRA BASAK, M.A., D.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners—{ BABU HEMENDRANATH SEN, B.L.
BABU JOGESCHANDRA DE, B.L.

1. Illustrate the distinction between direct and circumstantial evidence. 10

Or,

Explain the distinction between 'patent ambiguity' and 'latent ambiguity' in a document and discuss the admissibility of extrinsic evidence to remove such ambiguity.

2. The general principle with regard to the burden of proof may be stated to be that a party who desires to move the court must 10

prove all facts necessary for that purpose. Illustrate. Are there any exceptions to the general rule?

Or,

Discuss the principles laid down in any one of the following:—

- (i) *Sarat Chandra Dey v. Gopal Chandra Laha*, I.L.R. 20, Cal. 296
- (ii) *Khirajmal v. Diane*, L.R. 32, I.A. 23.
- (iii) *Zainulabdin v. Ashgar Ali*, I.L.R. 10, All 166.

3. The doctrine of constructive possession does not apply in favour of a wrong-doer so as to enable him to obtain thereby a title by limitation. Develop. 10

Or,

Examine how fraud affects the question of limitation.

4. Is oral evidence admissible to show that a deed of sale is in reality a deed of gift? Give reasons for your answer. 10

5. A lent a sum of Rs. 20,000 to B on the security of his properties. At the date of the mortgage B was a minor, and A had knowledge of this fact. B, however, at the time of executing the mortgage bond made a declaration that he was major. In a suit upon the mortgage bond, it was contended on behalf of B that he was a minor at the time of the mortgage and as such the mortgage was void. Will B be estopped by his declaration from pleading his minority in defence? Give reasons for your answer. 10

SECOND HALF.

Examiners— { BABU ASUTOSH MUKERJEE, M.A., B.L.
 { DR. SARATCHANDRA BASAK, M.A., D.L.

6. Explain and illustrate:—

“The Courts are not to act upon the principle that every procedure is to be taken as prohibited unless it is expressly provided by the Code, but on the converse principle that every procedure is to be understood as permissible till it is shown to be prohibited by the law.” 10

Or,

Discuss how far a foreign judgment operates as a bar to a suit instituted in British India upon the same cause of action.

7. How and by whom may a suit be instituted in case of any alleged breach of a public, charitable or religious trust, and what is the scope of such a suit? 10

Or,

On what grounds can the validity of an award made on reference by court be successfully challenged.

8. Illustrate:—Unless a right of appeal is clearly given by statute, it does not exist, whereas a litigant has independently of any statute a right to institute any suit of a civil nature in some court or other. 10

Or,

Give illustration of an Interpleader Suit.

9. A obtains an *ex-parte* decree against B by fraudulently suppressing the summons. B seeks your advice as to what steps he should take to set aside the decree. Has B any alternative remedies? Advise B and give reasons for your answer. 10

10. *A* and *B*, each claiming to be the heir of *X*, apply to a High Court, in the exercise of its testamentary jurisdiction, for letters of administration of the estate of *X*. The Court finds that *A* is the heir of *X*, and grants letters to him. *B* then sues *A* in the same court in the exercise of its original jurisdiction for a declaration that he, and not *A*, is the heir of *X*. Is the suit barred? Give reasons for your answer. 10

FOURTH PAPER.

CRIMINAL LAW.

Paper-setter—BABU BANKIMCHANDRA SEN, M.A., B.L.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiners— { BABU HAREPRASAD CHATTERJEE, M.A., B.L.
 { BABU BANKIMCHANDRA SEN, M.A., B.L.

1. Write a brief commentary on *either* of the following provisions of law :— 8

(a) When a criminal act is done by several persons in furtherance of the common intention of all, each of such persons is liable for that act in the same manner as if it were done by him alone.

(b) A person abets an offence who abets either the commission of an offence, on the commission of an act which would be an offence, if committed by a person capable by law of committing an offence, with the same intention or knowledge as that of the abettor

2. Show how 'Theft' can be aggravated into 'Dacoity.' 8

Or,

Distinguish between 'an Affray.' and 'Rioting.'

3. Take any *four* of the following cases and state what offence, if any, has *A* *prima facie* committed, and why. 16

(a) *A* enters *B*'s house through a window with intent to commit theft.

(b) *A*, a low-caste man, takes service as a cook under *B*, an orthodox Hindu representing himself to be a Brahmin, with the consequence that *B* is excommunicated for taking food cooked by *A*.

(c) *A*, a postmaster, spends for his own use money deposited in the Savings Bank under his charge.

(d) *A* cuts away paddy crops grown by *B* on *B*'s land.

(e) *A* says to *B*, "If you don't make over your purse to me, I will shoot you."

(f) *A* wilfully destroys a bond under which he owed money to *B*.

(g) *A* incites *B* to waylay and assault *C*.

4. Give a brief analysis of *any two* of the following offences :— 8
 'Kidnapping from lawful guardianship.'
 'Voluntarily causing hurt.'
 'Receiving stolen property.'
 'Defamation.'
5. Distinguish between 'Felony' and 'Misdemeanour' under the 10
 English Law and give three examples of each.

SECOND HALF.

Examiners—{ BABU PRABHATKUMAR MUKERJEE, M.A., B.L.
 BABU MANMATHANATH MUKERJEE, M.A., B.L.

6. What are the sentences which an Assistant Sessions Judge is 10
 competent to pass? What are the rules of law as regards appeals
 from the decisions of an Assistant Sessions Judge?

Or,

State the procedure to be adopted by an Appellate Court if it is of
 opinion that it is necessary to take additional evidence in the case.

7. Give a classification of the Courts of Magistrates and enumerate 10
 the sentences which they are respectively competent to pass.

Or,

Give a brief sketch of the procedure laid down for the trial of
 Summons Cases.

- 8 Discuss the legality of the procedure adopted in *any two* of the 10
 following cases :—

(a) *A* commits four different thefts at different times and places
 within the space of six months. He is tried at one trial and charged
 jointly for all the offences

(b) *A* wounds *B* at Berhampur. *B* is removed to Calcutta for
 treatment and dies in a hospital there. *A* is put on his trial at
 Calcutta for murdering *B*.

(c) In a trial by Jury a question arises whether the facts proved
 amount to 'murder' or 'culpable homicide.' The judge in charging
 the Jury tells them to find out the distinction between the two
 offences for themselves.

(d) *A* is tried for 'grievous hurt' which is an offence triable as a
 warrant case. After the framing of the charge, *A* makes an applica-
 tion to be allowed to cross-examine the witnesses for the prosecution
 The application is refused.

9. What is meant by a 'charge' in a criminal trial? 10
 Point out the defects, if any, in a charge drawn up against an
 accused person in the following terms :—

"That you committed theft by removing a box from the dwelling
 house of *A* and thereby committed an offence punishable under S.
 380 of the Indian Penal Code."

10. Distinguish between 'Common Law' and 'Statute Law' and 10
 briefly indicate the relation they bear to the Criminal Law of Eng-
 land.

I. C. Examination.

1917.

MATHEMATICS.

FIRST PAPER.

Examiners—{ PROF. S. N. MAITRA, M.A.
DR. HARIDAS BAGCHI, M.A., Ph.D.

Attempt no more than EIGHT questions.

The questions are of equal numerical value.

1. Establish the formulae

(i) $\log(ab) = b \log a.$

(ii) $\log(abc \dots) = \log a + \log b + \log c + \dots,$

and solve the equation $3^x = 484$ to 5 significant figures, with the help of a log table.

2. Show that the errors involved in the assumption

$$(1+x)(1+y) = 1+x+y$$

are the same in the following cases:—

(i) $x = .002, y = .012,$

(ii) $x = .003, y = .008,$

(iii) $x = .004, y = .006.$

3. For the two quantities 35.47712 and 42.8915 find the arithmetic, geometric, and harmonic means, correct to four places of decimals.

4. The formula

$$\log \frac{H}{V} = a + bV.$$

represents the relation between H , the horse-power of a set of marine engines, and V the speed of the vessel in knots. If the speeds 13 and 22 knots correspond to horse-powers of 4745 and 22055 respectively, determine approximately the values of the constants a and b , and find the horse-power when $V = 18$ knots.

5. Compute by contracted methods:—

(i) $29\ 304521 \times 3.715924,$

(ii) 29.304521
 3.715924

(the results being correct to 3 decimal places).

6. Each of two ships, which are a mile apart, finds the angles subtended by the other ship and a fort to be respectively $35^{\circ}14'$ and $42^{\circ}12'$. Find the distance of each from the fort, correct to 3 decimal places, given that

$$\sin 35^{\circ}14' = \cdot 577,$$

$$\sin 42^{\circ}12' = \cdot 671,$$

$$\sin 77^{\circ}26' = \cdot 976.$$

7. State Simpson's rule for finding the area of a curve.

For a certain curve, the ordinates corresponding to the abscissæ 3 ins., 3.5 ins., 4 ins., 4.5 ins., 5 ins., 5.5 ins., 6 ins. are 5 ins., 5.4 ins., 5.8 ins., 6.2 ins., 6.6 ins., 7 ins. and 7.4 ins. respectively. Find the area bounded by the curve, the extreme ordinates, and the x -axis.

8. Find the superficial area of a spherical ball, which, being thrown into a cylindrical tumbler of water whose diameter is 40 inches, will raise the water-level through 5.4 inches.

9. A triangular lamina of brass, whose sides are 5 ins., 12 ins., and 13 ins. respectively, is converted into a circular plate of the same thickness. Determine the dimensions of the plate, if it is to contain a concentric circular hole of radius 2 ins.

10. Prove that the volume of a cone $= \frac{1}{3}\pi r^2 h$, where r is the radius of the base and h is the height.

A cubical block of ice, whose side is 8.54 ins., is liquefied and then poured into an inverted conical vessel, whose semi-vertical angle is 30° . If this vessel just contains all the water, determine the diameter of its base (to 2 decimal places).

[N.B.—Assume that 10 vols. of water are frozen into 11 vols. of ice].

11. Prove that the volume of a pyramid $= \frac{1}{3}$ (area of base) \times (altitude).

Calculate the volume of a pyramid, whose altitude is 15 ft. and whose base is a regular hexagon of side 7 ft.

MATHEMATICS.

SECOND PAPER.

Examiners—{ PROF. S. N. MAITRA, M.A.
DR. HARIDAS BAGCHI, MA., PH.D.

The questions are of equal numerical value.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Only THREE questions to be attempted.

1. Investigate the necessary and sufficient conditions that a system of coplanar forces, acting on a rigid body, may be in equilibrium.

Four equal uniform rods are freely jointed to form a rhombus $ABCD$. The rhombus is suspended from the joint A , and is maintained in the form of a square by means of a rod of negligible weight joining the middle points of BC and CD . Find the vertical and horizontal components of the reactions at the joints B and D .

2. Establish the principle of the triangle of forces.

O is a point in a circle, and two forces inversely proportional to any two chords OA and BO act at O in the senses OA and BO ; prove that their resultant acts along the tangent to the circle at O .

3. A smooth hemispherical bowl, of diameter a , is placed so that its edge touches a smooth vertical wall; a heavy uniform rod is in equilibrium, inclined at 60° to the horizon, with one end resting on the inner surface of the bowl and the other end resting against the wall; show that the length of the rod is

$$a + \frac{a}{\sqrt{13}}.$$

4. A body of mass M has a movable part of mass m ; prove that, when the movable part is displaced so that its centre of gravity moves through a distance c , the centre of gravity of the whole is displaced through a distance mc/M in the same direction.

A sheet of paper is in the shape of a rectangle, 9 inches wide by 12 inches long; one of the shorter sides is folded down, so as to lie entirely along one of the longer sides; find the centre of gravity of the whole sheet when thus folded.

5. A particle of mass m falls from rest at a height h above the ground; show that the sum of its potential and kinetic energies is constant throughout the motion.

A mass M after falling freely through a feet begins to raise a mass m greater than itself and connected with it by means of a string passing over a fixed pulley. Show that m will have returned to its original position at the end of time.

$$\frac{2M}{m-M} \sqrt{\frac{2a}{g}}.$$

6. A particle revolves uniformly in a circle, find the necessary force towards the centre of the circle.

With what number of turns per minute must a mass of 10 grammes revolve horizontally at the end of a string, half a metre in length, to cause the same tension in the string as would be caused by a mass of one gramme hanging vertically?

SECOND HALF.

Not more than THREE questions to be attempted.

7. Draw the diagram of the stress-strain curve for a mild steel bar and explain the terms elastic limit, yield point, permanent set, maximum breaking, actual breaking and local contraction. Find the work done in stretching a mild steel wire.

8. A beam 48 ft. span is supported at the ends and loaded with weights of 6, 9, 10, 13, 5 and 7 tons placed at intervals of 4, 5, 9, 7, 13 and 8 ft. respectively commencing from the right. Draw the bending moment and shear diagrams.

9. Prove that in a long cylindrical boiler, the tendency to burst laterally is twice as great as the tendency to burst endwise.

What thickness of cast-iron pipe 10 inches internal diameter will be required to stand an internal pressure of 50 lbs. per square inch. The stress in the pipe does not exceed 1,000 lbs. per square inch.

10. Rolled joists are used to support a floor which is loaded with 150 pounds per square foot including its own weight. The pitch of the joist is 3 feet, span 20 feet, skin stress 5 tons per square inch. Find a suitable section for the joist, taking the depth to be $\frac{1}{12}$ of the span.

11. The load on the platform of a suspension bridge 600 feet span is $\frac{1}{2}$ ton per foot-run, inclusive of chains and suspending rods. The dip is $\frac{1}{12}$ of the span. Find the greatest and least tensions of one of the chains.

Prove the formula you use.

MATHEMATICS.

THIRD PAPER.

Examiners— { PROF. S. N. MAITRA, M.A.
 { DR. HARIDAS BAGCHI, M.A., PH.D.

Write the answers to the two halves in SEPARATE books.

Attempt only FOUR questions in each half.

FIRST HALF.

1. Determine the condition that

$$ax^2 + 2hxy + by^2 = 0$$

may represent two perpendicular lines.

Given that the two lines

$$\cos^2 a \cdot x^2 + 10xy - \sin^2 a \cdot y^2 = 0$$

are at right angles to each other, prove that $2a$ is an odd multiple of a right angle.

2. Find the centre and radius of the circle given by its general Cartesian equation.

Verify that the centres of the three circles

$$x^2 + y^2 = 16,$$

$$x^2 + y^2 - 12x - 12\sqrt{3}y = 0,$$

$$x^2 + y^2 - 24x = 0,$$

form an equilateral triangle.

3. Show that any tangent of the circle

$$x^2 + y^2 = a^2$$

can be put into the form

$$y = mx + a\sqrt{1 + m^2}.$$

Prove that

$$x^2 + y^2 = a^2$$

represents the inscribed circle of the triangle, whose sides are

$$y = 2x + a\sqrt{5},$$

$$y = 4x + a\sqrt{17},$$

$$y = 7x + a\sqrt{50}.$$

4. Show that every point on the parabola $y^2=4ax$ has its coordinates of the form $(at^2, 2at)$.

Fix the positions of two points on the parabola, whose ordinates are equal in length, and which subtend a right angle at the origin.

5. Obtain the equation of an ellipse in the form

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1,$$

referred to a suitable pair of axes. Prove that the conic intercepts equal chords on the straight lines

$$\frac{x}{a} + \frac{y}{b} = 1 \text{ and } \frac{x}{a} + \frac{y}{b} + 1 = 0.$$

6. Write a short note on the hyperbola

$$\frac{x^2}{a^2} - \frac{y^2}{b^2} = 1,$$

explaining clearly how it consists of two *distinct* infinite branches. Prove that the two variable lines

$$\frac{x}{a} + \frac{y}{b} = m \text{ and } \frac{x}{a} - \frac{y}{b} = \frac{1}{m},$$

(where m is a parameter), always intersect on the hyperbola.

SECOND HALF.

7. Find from first principles the differential coefficient of $\log x$ with regard to x .

Given that

$$y = \frac{\sqrt{x^2-1}}{x^2} + \operatorname{cosec}^{-1} x, \text{ find } \frac{dy}{dx}.$$

8. If $y = \sin(m \sin^{-1} x)$, prove that

$$(1-x^2) \frac{d^2 y}{dx^2} - x \frac{dy}{dx} + m^2 y = 0.$$

9. State and prove MacLaurin's theorem.

Find the first three terms in the expansion of $y = a^x$.

10. If $f(x)$ has a maximum or minimum value when $x=a$, show that $f'(a)=0$.

Find the value of x from which $\sec x - x$ is a maximum or a minimum.

11. Integrate the following:—

$$(i) \frac{x dx}{1+x}, (ii) \sqrt{a^2 - x^2} dx, (iii) x^2 \log x dx.$$

CHEMISTRY.

Examiners— { PROF. R. N. SEN, M.A.
 { DR. ANUKULCHANDRA SARKAR, M.A., PH.D.

Not more than THREE questions in each half to be attempted.

The questions carry equal marks.

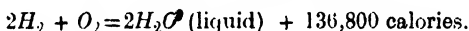
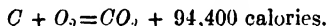
Write the answers to each half in a SEPARATE book.

FIRST HALF.

1. Briefly state the Ionic theory. How would you characterize an acid solution, an alkaline solution, and a neutral solution according to this theory? How does this theory account for (a) the alkalinity of the solution of a salt like sodium carbonate or potassium cyanide and (b) the difference in the behaviour of a double salt and a complex salt in solution?

2. What elements constitute the useful portion of a fuel? How does oxygen in a fuel affect its value?

From the following data calculate the approximate calorific power of ethane and compare it with that of ethyl alcohol:—



Mention any assumptions that are made in the calculation.

3. Briefly describe the extraction of copper from the sulphide ores.

How is copper recovered from the burnt pyrites of the sulphuric acid works?

4. Compare the following metals as regards their mechanical strength and their power to resist corrosion by moist air, acids, and alkalis:—

Zinc, Tin, Lead, Aluminium, Copper, and Iron.

SECOND HALF

1. What is the composition Portland Cement, and how is it prepared? Give a short account of the theory of its setting and hardening with water.

2. Describe how you would proceed to determine the suitability of a sample of water for (1) drinking purposes, and (2) boiler purposes.

What are the various methods of sterilising drinking water?

3. What is meant by the "rusting" of Iron, and how is it caused?

Describe and compare the processes of tinning and galvanising to prevent the rusting of iron.

4. Write what you know about the composition and uses of the following:—

Red lead, White lead, Black lead, Ordinary clay, White clay and Fire-clay.

PHYSICS.

Examiners—{ PROF. S. N. MAITRA, M.A.
PROF. TULSIDAS KAR, M.A.

The questions are of equal numerical value.

Write the answers to each half in a SEPARATE book.

FIRST HALF.

Only FOUR questions to be attempted.

1. A leaden bullet of specific heat $\cdot 032$ strikes against an iron target with a velocity of 400 metres per second. If the bullet falls dead and the heat produced is equally distributed between it and the target, find its temperature, supposing it originally at 10°C .

2. Prove the formula $pv^{\gamma} = \text{Constant}$.

A quantity of gas initially at 0°C is suddenly compressed adiabatically to half its volume. Find the rise of temperature. Assume $\gamma = 1\cdot 4$.

3. Describe and explain the working of Clement and Desormes's apparatus for finding the ratio of the specific heats of a gas (γ).

The following data were obtained with compressed air, to start with. A Xylol manometer was used. Barometer reading = $75\cdot 18$ cms. Sp. gravity of mercury = $13\cdot 59$. Sp. gravity of Xylol = $\cdot 866$. Initial manometer readings $31\cdot 95$ cms. and $10\cdot 35$ cms. Final manometer readings $23\cdot 9$ cms. and $18\cdot 2$ cms. Calculate the value of γ .

4. Show that the flow of heat per second per unit length across the walls of a hollow tube of internal and external radii r_1, r_2 is equal to

$$\frac{2\pi k(\theta_1 - \theta_2)}{2\cdot 0326 \log_{10} \frac{r_2}{r_1}}$$

where k is the conductivity of the tube and θ_1 and θ_2 are the steady temperatures inside and outside the tube.

Investigate the loss of heat per second per unit length of a $2''$ steam pipe (outside diameter $2''\cdot 375$) protected with a special magnesia covering $1''$ thick. Temperature of pipe = 185°C , temperature of the outer surface of covering = $47^{\circ}\cdot 2\text{C}$. Conductivity of magnesia = $\cdot 000156$.

5. Discuss the relative merits of Huygen's and Ramsden's eye-pieces, with diagrams.

6. A convex lens produces an image of a candle-flame upon a screen whose distance from the candle is l ; the lens is displaced through a distance d , when it is found that a distinct image is again produced upon the screen. Show that the focal length of the lens is

$$\frac{l^2 - d^2}{4l}$$

Prove that the size of the object is a geometrical mean between the sizes of the two images produced.

SECOND HALF.

Only THREE questions to be attempted.

7. Enumerate some of the methods for verifying the law of inverse squares for magnetic forces, and explain Gauss' proof of the law in detail.

8. State Gauss' theorem on the total normal induction over a closed surface.

Apply the above theorem to find the capacity per unit length of a long cylindrical condenser.

9. Explain clearly the theory and the method of measuring E.M.F.'s by Crompton's potentiometer.

10. Describe a method of measuring the electric energy consumed by an incandescent lamp.

Calculate the cost of using 250 16-C.P. lamps for 10 hours, if the efficiency of each lamp be 4 watts/C.P. and the charge per B.T.U. be 6 as.

11. Compare the moving coil galvanometer, Weston Ammeter, and Weston Voltmeter, as regards (a) the construction, (b) the method of use, and (c) the accuracy.

Explain how the moving coil galvanometer can be converted (a) into an ammeter, and (b) into a voltmeter.

MATERIALS OF CONSTRUCTION.

Examiners—{ BABU CHUNILAL SARKAR. B.E.
N. G. DUNBAR. ESQ.

The answers must be in your own words as far practicable.

Write the answers to each half in a SEPARATE book.

The questions are of equal numerical value.

FIRST HALF.

Only FOUR questions to be attempted.

1. Give a cross section of the trunk of a timber tree and name the different parts.

Briefly describe the growth of a tree.

2. What are the requisites of a good building stone? State why stones are usually laid on their 'natural bed' and how these beds are ascertained.

Arrange the following stones in the order of their degree of hardness and durability:—trap, basalt, marble, granite and sandstone.

3. You are asked to collect materials for constructing a building having architectural features. State what points you will consider in selecting the quarry or quarries for the supply of stones.

4. A wall 85 feet long, 7 feet high and two bricks thick is to be built of bricks (10" x 5" x 3") in mortar consisting of 1 part of sand, 1 part of surki, and 1 part of lime. How many bricks are required, and also how many cubic feet of sand, surki and lime?

The proportion specified for cement concrete is 1 : 3 : 7. How many barrels of Portland Cement will you indent for preparing 42,000 c. ft. of concrete?

5. Give methods, and reasons, of protecting iron-work. How would you prepare new and old woodwork for painting? Describe the operation of painting.

SECOND HALF.

Only FOUR questions to be attempted.

6. What are the chemical and physical differences of wrought-iron and steel? Give examples of, and reasons for, their use in building construction.

7. What is meant by hydraulic and non-hydraulic limes? How would you distinguish them, and when is each used?

8. Cement concrete for foundations is mixed with water and laid in a trench. How should it be consolidated, and for what length of time? When does the cement start to set, and does the consolidation interfere with the setting of the cement?

9. What is a good brick earth? Would you add sand to it, and if so, why?

10. In the list of stones given in question 2, which would you select as most suitable for

(a) concrete,

(b) road metal?

Describe briefly your reasons for the selection in each case.

DETAILS OF CONSTRUCTION.

Examiners—{ PROF. T. H. RICHARDSON, B.A., B.A.I.
H. W. JOYCE, ESQ., M.I.C.E.

Attempt only FOUR questions in EACH half.

The figures in the margin indicate full marks.

Write the answers to each half in a SEPARATE book.

Your own ideas are wanted. The examiners will not be impressed by your reproducing pages of text-book from mere memory.

Read each question carefully BEFORE you answer it.

FIRST HALF.

1. What are the objections to grading a road in cutting? When 50 would you think it advisable to cut?

2. Sketch, to as large a scale as practicable, the cross section of 50 a metalled road, where stone metal is not available.

3. What is reinforced brickwork? Show by sketches how you 50 would reinforce—

(a) a reinforced brick roof;

(b) a thin reinforced brick partition wall;

4. What are the objections to constructing a wall with ashlar 50 facing and rubble backing? How would you overcome these objections?

5. Sketch the centring for a small brick arch, paying special at- 50 tention to the details for striking the centres.

SECOND HALF.

6. You have to divide a room 40' long \times 20' wide into two equal parts by means of a wooden partition 7' 0" high with a door 6' \times 3' 6" in the centre. Make a sketch of the partition such as you would give your draftsman to enable him to make a construction drawing. 50

7. You are required to build a Sub-Judge's court house at a small station. Stone is not available. The building is to be of First Class Brickwork (pucca) in the outside walls and round openings, and of Second Class Bricks in mud mortar in the interior. 50

Write short specifications for :—

- (a) Concrete in foundations.
- (b) Pacca Masonry,
- (c) Kacha-pacca Masonry.

NOTE.—Each distinct item of a specification should form the subject of a separate clause of the specification.

8. Draw a plan of the method you would adopt in making the copying of a pilaster at the end of the parapet of a Brick Masonry Bridge. The size of the pilaster in plan is 4' 6" \times 2' 0". Size of bricks 9" \times 4½" \times 2½". 50

The plan should show how the bricks would be cut to form the corners.

9. Explain in detail, or by sketches, how you would hoist a wooden truss 30' span into position on the walls of a building which is 20' high at the eaves, and show how you would slay it when in position. 50

10. Sketch any type of wooden, or steel truss that you consider suitable for a building which has a span of 40 feet. 50

Give what you consider would be the approximate dimensions of its members.

Make clear detail drawings of any two of its joints.

ESTIMATING.

Examiners -- } BABU CHUNILAL SARKAR, B.E.
 } BABU SAILENDRANATH BANERJEE.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

1. Estimate the cost of the following items in the slab culvert 100 from the accompanying drawing in Plate No. 1 :—

- (i) Stone concrete @ 15/- per 100 cu. ft.
- (ii) Uncoursed rubble masonry at 20/- per 100 cu. ft.
- (iii) Slab stone topping at 30/- per 100 cu. ft.
- (iv) Dressed stone string course and coping of parapet @ 45/- per 100 cu. ft.

SECOND HALF.

No credit will be given, if your arithmetic is faulty.

2. What deductions would you make in brickwork for door openings— 15

- (a) spanned by iron lintels and a relieving arch ;

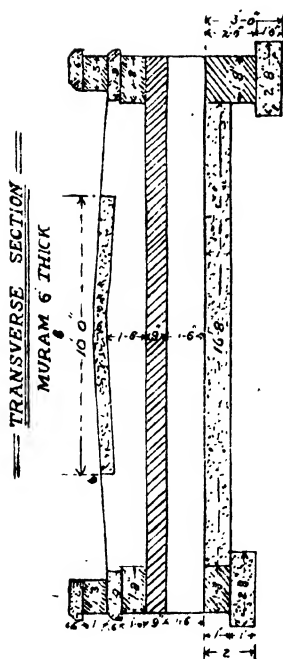
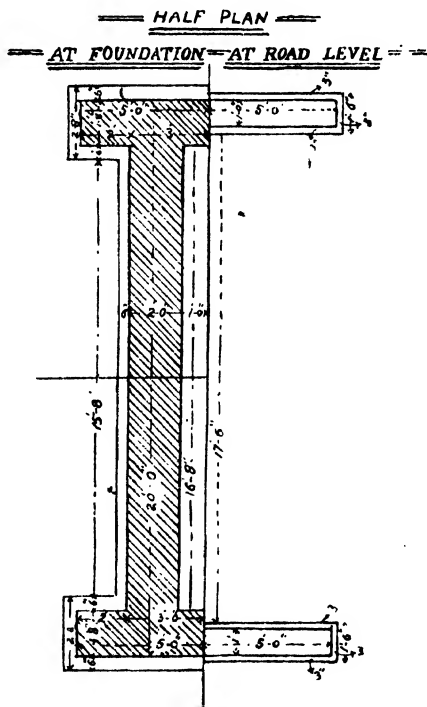
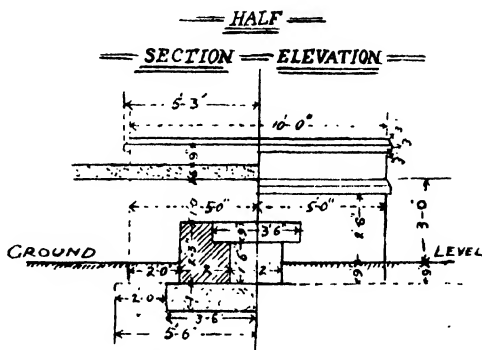
(b) spanned by a flat arch as well as a relieving arch :

(c) spanned by a single semicircular arch ?

3. In the sketch of the building (Plate 2) given to you, find out quantities of—

(a) Brickwork in foundation, mild steel joists, M.S. tees and angles, $\frac{1}{2}$ " cement damp proof course.

Scale 4' = 1"



SURVEYING.

Examiners—{ BABU SURENDRANATH DAS, B.E.
RAI AMARNATH DAS, BAHADUR, B.E.
PROF. J. H. RICHARDSON, B.A., B.A.I.

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

FIRST HALF

Answer any FOUR questions.

1. Describe the importance of hand sketch in survey operations. 25
Explain clearly by means of sketches how you would proceed to make a reliable hand sketch of a certain plot of land.
2. A prismatic compass survey of a field was made in 1891 and the following observations were recorded in the field Book. 25

<i>Station line.</i>	<i>Magnetic Bearing,</i>	<i>Distance in feet.</i>
<i>AB</i>	060°00'	510
<i>BC</i>	165°00'	420
<i>CD</i>	240°30'	300
<i>DE</i>	255°45'	175
<i>EA</i>	not traceable	not traceable

Plot the above to a scale of 100 ft. to the inch and find the true bearing of *EA* and its length, taking the magnetic variation in 1891 to be 2°30' east.

3. What are the relative advantages, when traversing with theodolite, of reading the bearing of the line with any arbitrary direction and reading the magnetic bearing of one line only and the successive inward angles. Describe any method with sketches to make the successive operations clear. 25
4. What examination would you make of a level issued to you for field work? Describe in detail the tests you would submit it to and how you would make the necessary corrections. 25
5. What do you understand by "Subtense measurement"? Name and describe briefly the instruments and appliances, besides the theodolite, which you would require for the measurement. 25

SECOND HALF.

Answer FOUR questions only.

6. What is meant by "Contouring"? How would you make a contour survey of a large tract of tolerably flat country for the preparation of a drainage project? Give sketches. 25
7. Describe survey operations by plane table only. State its advantages and disadvantages over survey by Prismatic Compass. Under what condition is the former specially suitable? 25

8. Explain the principle, construction and use of vernier. 25
 9. What points should you consider in selecting the base line for a Trigonometrical Survey? How would you measure it, and how would you reduce the length for plotting the survey? 25
 10. Explain how you would lay out a curve of radius 2,000 feet by chords of 100 feet, without the help of any angular instrument. 25

DRAWING.

Examiners—{ BABU CHUNILAL SARKAR, B.E.
 B. G. GWYTHER, ESQ.
 B. HEATON, ESQ.

Answer each half in a SEPARATE sheet of Drawing paper.

FIRST HALF.

The same value is attached to each question.

Only THREE questions to be attempted.

1. $a b c d$ represents a blackboard ($6' \times 3'$) on which an equilateral triangle of $1\frac{1}{2}$ feet side is drawn as shown in fig. 1. Draw the plan of the board and the triangle when the plane of the former is inclined at 45° to the vertical and the longer edges (ad, bc) are horizontal. Scale $1' = 1''$.

2. The vertical and horizontal traces of a plane make angles of 50° and 30° respectively with the ground line. Determine the angles the plane makes with the planes of projection and also the angle between them.

3. Two bricks ($10'' \times 5'' \times 3''$) are arranged as shown in plan and side elevation in fig. 2. Represent the bricks in isometric projection. Scale $\frac{1}{2}''$.

4. Draw two circles of $3''$ and $\frac{3}{4}''$ diameters, their centres being $\frac{3}{4}''$ apart. These two circles represent the plan of a right cone and a cylinder, standing upright on the ground; the height of the cone is $3''$.

Determine the curve of their intersection in elevation, when the plane containing the axes of both is inclined at 30° to the vertical plane.

SECOND HALF

5. Make a cross section AB of the accompanying design for a rest-house to scale $\frac{1}{4}'' = 1$ foot. 50

The height of the main rooms to be $16'$.

The height of verandahs and bathrooms to be $11'$.

The roof to be terraced throughout.

6. Make a rough pencil sketch of any two of the following:— 40

(i) Chase mortice.

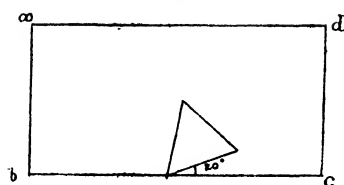
(ii) Stilted arch.

(iii) Coping.

(iv) Window jamb.

FIG. 1.

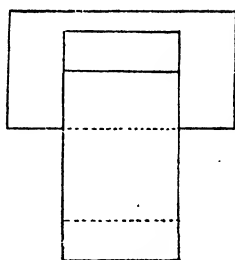
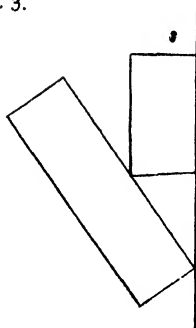
Q. 1.



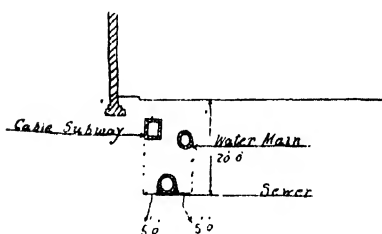
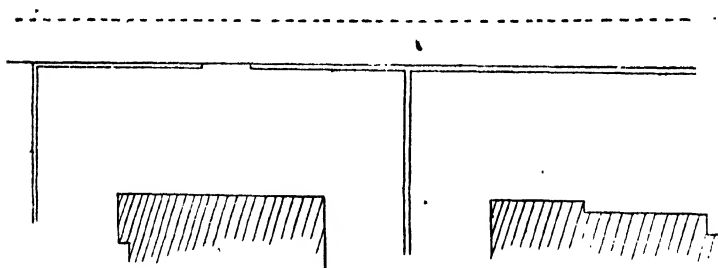
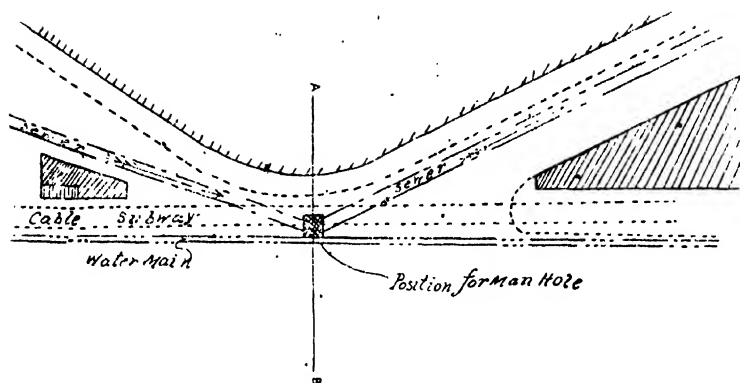
Q. 3.

FIG. 2.

SIDE ELEVATION



PLAN



MATHEMATICS.

FIRST PAPER.

Examiners— { PROF. S. N. MAITRA, M.A.
{ DR. C. E. CULLIS, M.A., PH.D.

The questions are of equal numerical value.

Only SEVEN questions to be attempted

1. Evaluate

$$(i) \int e^{ax} \cos bx \, dx, \quad (ii) \int x \tan^{-1} x \, dx, \quad (iii) \int \frac{dx}{x^2(x-1)}.$$

2. Prove that

$$\int_0^{\frac{\pi}{2}} \frac{d\theta}{\sin \theta + \cos \theta} = \sqrt{2} \log_e (1 + \sqrt{2}),$$

3. Solve the differential equations:—

$$(i) \frac{dy}{dx} = \frac{3x + y + 1}{x + 3y + 5},$$

$$(ii) \frac{d^2y}{dx^2} - 5 \frac{dy}{dx} + 4y = (1 - 3x)e^x.$$

4. Integrate

$$(i) x^2 \frac{d^2y}{dx^2} - 3x \frac{dy}{dx} + 4y = x^2 + \cos \log x.$$

$$(ii) x^2 \frac{d^2y}{dx^2} + 2x \frac{dy}{dx} = 2 \log x.$$

5. Obtain the expressions

$$\frac{d^2\gamma}{dt^2} - \gamma \left(\frac{d\theta}{dt} \right)^2, \text{ and } \frac{1}{\gamma} \frac{d}{dt} \left(\gamma^2 \frac{d\theta}{dt} \right)$$

for the component accelerations in polar co-ordinates.

6. Find the kinetic energy of a body rolling down an inclined plane.

Show that a ball will roll faster than a disc, and a disc faster than a hoop, if they all have the same radius.

7. Prove the equations

$$s = c \tan \phi, \quad y = c \sec \phi$$

for the common catenary, and show that if a point at arcual distance s from the vertex be at a height h above it, $\frac{s^2 - h^2}{h}$ is constant.

8. Explain the term Metacenter and show how the stability of a floating body depends upon the position of the metacenter.

A solid cylinder is floating with its axis horizontal in a liquid of double its density. Determine the condition of stability of equilibrium for displacement in a vertical plane through the axis.

9. Find the periodic time of a compound pendulum and show that the centres of oscillation and suspension are interchangeable.

10. Define Centre of Pressure.

Find the centre of pressure of a triangular lamina immersed vertically with its vertex on the surface and the base horizontal.

MATHEMATICS.

SECOND PAPER.

Examiners— $\left\{ \begin{array}{l} \text{PROF. S. N. MAITRA, M.A.} \\ \text{DR. C. E. CULLIS, M.A., PH.D.} \end{array} \right.$

The questions are of equal numerical value.

Only SIX questions to be attempted.

1. A light elastic string OP of natural length a and modulus of elasticity E lies in a straight line upon a smooth table: the end O is fixed to the table and P is attached to a mass m . The mass is now projected with velocity V at right angles to the string. Prove that the greatest length na to which the string is stretched in the ensuing motion is given by the equation

$$\frac{n^2(n-1)}{n+1} = \frac{mV^2}{aE}.$$

2. A particle is projected in a medium whose resistance is proportional to the cube of the velocity and no other forces act on the particle; while the velocity diminishes from v_1 to v_2 the particle traverses the distance D in time T .

Show that

$$\frac{D}{T} = \frac{2v_1v_2}{v_1+v_2}.$$

3. A ball of radius r rolls to and fro without slipping inside a spherical surface. Show that the radius of curvature, R , of the surface is given by

$$T = 2\pi \sqrt{\frac{7(R-r)}{5g}}$$

where T is the periodic time of oscillations of the rolling ball.

4. A uniform cube swings about one of its edges, which is horizontal, and in the highest positions the centroid is level with the axis of rotation. Find the stress on the axis in any position; and show that the ratio of its minimum to its maximum value is as 1:10.

[The moment of inertia of a uniform cube of mass M and side $2a$ about a straight line through its centroid is $\frac{3}{3}Ma^2$.]

5. A uniform rod of length $2a$ hangs horizontally, its ends being attached to two vertical strings of equal length l suspended from fixed

points. The rod is given an angular velocity about a vertical axis through its centre. Prove that the time of a small oscillation about the position of equilibrium is

$$2\pi\sqrt{\frac{I}{3g}}$$

6. The mass of a fly-wheel is 20 lbs. and a mass of 1 lb. hangs by a string wrapped round the axle which is horizontal. This mass is observed to descend through 5 ft. from rest in 8 seconds. Find the radius of gyration of the fly wheel, having given that the radius of the axle is 2 inches.

7. A wheel mounted on a horizontal axis, when loaded with a small load of mass m at a distance r from its axis, oscillates in the same period as a simple pendulum of length l . What is the moment of inertia of the wheel (apart from the load) about its axis?

8. A telegraph is constructed of No. 8 S.W.G. iron-wire which weighs 7.3 lbs per 100 feet. The distance between the posts is 150 feet and the wire sags 1 foot in the middle. Show that it is screwed up to a tension of 205 lbs. weight.

9. The cross-section of a uniform log is an isosceles triangle ABC with a right angle at C . The log floats in water with the edge C immersed, the edge A in the surface and half the face BC under water. equilibrium being maintained by a load fastened at the middle point of the edge A . Show that the weight of this load is one-ninth of the weight of the log, and that the specific gravity of the log is .45.

GEOLOGY AND MINERALOGY.

Examiners— $\left\{ \begin{array}{l} \text{PROF. E. H. ROBERTON, B.A., M.Sc., M.I.E.E.,} \\ \text{F.G.S.} \\ \text{G. DE P. COTTER, Esq.} \end{array} \right.$

Answer either (a) or (b) of each question.

The questions carry equal marks.

Write the answers to the two halves in SEPARATE books.

1. (a) What do you understand by the terms—Dome gneiss, Charnockite, Gondwanaland, Sind Siwaliks, Intrusive dyke, Boulder clay, Reverse fault, Screes, Shale, Coral, Laterite?

(b) Give an account of the rocks of the Archaean group in Peninsular India.

2. (a) Draw a geological section of the Raniganj coalfield from West to East, showing the principal dykes and faults.

(b) Draw an imaginary geological plan, with a corresponding section, to show a dyke, an unconformity, a syncline, an anticline, and three "step" faults at right angles to the line of section.

3. (a) Discuss the origin, extent, and age of the Deccan trap.

(b) Describe the progress of a glacier from its source to its melting point.

SECOND HALF.

4. (a) What are the principal oil fields of the Indian Empire? In what kind of rocks is oil found, and why is it associated with anticlinal structure?

(b) If you were asked to examine a sample of sand in order to ascertain whether it contained any valuable minerals, how would you proceed?

5. (a) How far can you tell the crystalline properties of a mineral by examining a section of it in a slide under the microscope?

(b) Explain clearly how and why the faces of a cube of iron pyrites are longitudinally striated.

6. (a) How would you distinguish between —

1. Magnesite, kaolin, and chalk;

2. Beryl, apatite, and jadeite;

3. Wolfram, cassiterite, and zinc blende?

(b) How would you test with the blowpipe for the following:—cobalt, nickel, silica, boron, aluminium, arsenic, manganese?

METALLURGY AND TESTING OF MATERIALS.

Examiners— { PROF. R. N. SEN., M.A.
 { N. BRODIE, ESQ.

Write the answers to each half in SEPARATE books.

Not more than THREE questions in each half to be attempted.

The questions carry equal marks.

FIRST HALF.

1. Describe, giving full practical details and explaining the principles involved, any process for the estimation of total sulphur in coal.

2. What are the five principal elements, other than iron, found in ordinary steel, and how do they affect its mechanical properties?

3. Describe and explain the Basic Open-Hearth process for the manufacture of Steel, giving a diagrammatic sketch of the furnace.

Is this process suitable for all kinds of pig-iron? If not, for what sort is it most suitable, and why?

4. Give an account of the various methods in use for the extraction of gold from alluvial deposits.

5. Describe in detail and explain any process for the analytical determination of the chief constituents of any one of the following alloys:—

(a) Brass,

(b) Soft Solder.

(c) Aluminium Bronze.

SECOND HALF.

6. What is Coke? What are the advantages of coke over coal as a fuel for metallurgical purposes?

Explain the principle of coke-manufacture, with special reference to the recovery of bye products.

7. What are fluxes? What considerations determine the selection of a flux for any particular purpose?

Write what you know about the composition and uses of the following slags:—

Blast-furnace Slag, Refinery Slag, and Basic Bessemer Slag.

8. Explain, with a sketch, the principle and construction of a reverberatory furnace. What are its special advantages?

Briefly describe any metallurgical process which may be best conducted in an ordinary reverberatory furnace.

9. What is meant by Metallography?

Write what you know about the metallography of the different kinds of steel.

10. Describe the mechanical testing of metals and the fire-testing of clays.

APPLIED PHYSICS.

Examiners—{ PROF. S. N. MAITRA, M.A.
F. W. SEDGEWICK, ESQ.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

The questions are of equal numerical value.

Only THREE questions to be attempted in each half.

1. Explain Searle's dynamical method of finding Young's modulus and the torsional rigidity of a wire.

Or,

Explain the method finding "Poisson's ratio" by the bending of a beam of rectangular section.

2. Give an account of Fresnel's interpretation of the rotation of plane-polarized light. Find an expression connecting the rotation with the distance traversed by polarized light in the optically active medium.

Or,

Define "specific rotation" and explain how it can be determined by a half-shade polarimeter.

3. What is meant by the "co-efficient of performance" of a refrigerating machine? Explain with the help of a sketch an Ammonia absorption machine for producing cold.

4. Show that the general equation for the temperature θ at a point x, y, z , in a homogeneous solid at time t is

$$\frac{\partial \theta}{\partial t} = \frac{k}{\rho s} \left(\frac{\partial^2 \theta}{\partial x^2} + \frac{\partial^2 \theta}{\partial y^2} + \frac{\partial^2 \theta}{\partial z^2} \right)$$

where k is the conductivity, ρ the density, and s the specific heat of the solid.

Find the heat transmitted per unit time through a hollow cylinder, after the steady state has been reached, when the inside and outside surfaces are kept at constant temperature.

Or,

A long nickel bar is heated at one end. It is found by the aid of inserted thermometers that at a point where the temperature is 65°C above that of the room the variation of temperature gradient is 246° per centimeter per centimeter. A separate experiment on a small section of the same bar showed that when this was heated to 65°C the rate of cooling was 2.25 per minute. What is the diffusivity of the sample of nickel? Also, calculate the conductivity of the specimen. Given density of nickel = 8.81 , specific heat = 106 .

SECOND HALF.

1. "Electrical Energy in engineering is used merely as an intermediate form of energy, neither being obtained naturally nor used directly by the engineer." Explain this statement and discuss briefly any general consequences you can deduce from it.

2. Explain what is meant by the starting torque of a motor and describe the types of load for which a large starting torque is desirable.

Explain the advantages of the C.C. Series motor over the Shunt from the above point of view.

3. Deduce a formula for the induced e.m.f. in a C.C. dynamo or motor in terms of the following quantities:—

p = number of pairs of poles.

Φ = magnetic flux per pole.

N = number of Inductors in series between the Brushes.

S = speed in revs. per minute.

Determine with this formula the conditions under which a Shunt motor should run at nearly constant speed at all loads.

4. A set of 220 volt Three Phase mains supply a 5 B.H.P. motor, full load efficiency 81% , power factor 72 ; the same mains also supply incandescent lamps rated at 3,000 watts; show how to calculate, graphically or otherwise, the full load current in the mains.

5. Explain briefly the results, on the working of an incandescent lamp, of evaporation or sublimation from the filament.

How is this effect dealt with in the modern Half Watt lamp?

6. (a) Explain the term efficiency of lighting or illumination for a room.

(b) Give a formula based on an assumed efficiency of lighting for determining the total candlepower required to light a room satisfactorily.

(c) What are the principal features in a room which influence the efficiency of lighting?

7. Describe the Parallel System of distributing electrical energy with Feeders and Distributors, and explain clearly how an approximately constant and uniform voltage is supplied at the Consumers' Terminals.

ROADS AND RAILWAYS.

Examiners—{ PROF. T. H. RICHARDSON. B.A., B.A.I.,
M.I.C.E.
H. W. JOYCE, Esq.

Only FOUR questions to be answered from each half.

The figures in the margin indicate full marks.

Write the answers to each half in a SEPARATE book.

FIRST HALF.

1. Why should cutting be avoided in grading a road? In what cases would you consider it advisable to cut? 50
2. What data would you collect and how would you estimate the 50
waterway required in the case of—
(a) a small culvert.
(b) a large bridge?
3. Sketch, to as large a scale as practicable, the cross section of a 50
metalled road in a district where stone metal is available.
4. Sketch the cross section of a hill road for pack animals only, 50
showing it partly in cut part in fill with revetment wall, side slope of
hill 1 in 3
- How would you provide for drainage?
5. Give a short abstract of any items in the Report of the Board 50
of Scientific Advice for India which you consider to be of interest to
Road and Railway Engineers.

SECOND HALF.

6. Draw a section of a Railway Cutting and dimension it fully. 50
The soil is hard mooram. Depth of cutting five feet. The land slopes
at 1 in 20 across the direction of track. Gauge 5' 6". Rails 90 H.
Sleepers wood.
- Your sketch should show clearly *with dimensions* every part of the
track, the land required, the position of the spoil, the size and position
of the catch water drain or drains, the slope of the cutting, the shape
and width of formation, the side drains, etc.
7. What is "ruling grade." and what are the disadvantages of 50
working to it in grading a line, if the ruling grade occurs at only one
place between two engine-changing stations?
- Would you invariably adopt the "ruling grade" to avoid cutting
or bank? If so, what would be your reasons?
8. Owing to heavy rain, a length of 200 feet of six-foot bank on a 50
main line of Railway under your charge has been washed away.
Water is still flowing in the lowest part in a stream about 10 feet wide
and 2' deep with a velocity of 7 feet per second. Explain in detail
how you would set about restoring traffic. You have available a
good supply of labour, baskets, phoaraks, shovels, pick-axes, gunny
bags, wooden sleepers and 90 lb rails.
- How many hours do you think the work ought to take? Give
reasons for your answer.

9. The tendency of Railways at present is to use entire masonry bridges and culverts where possible in place of girder bridges. What, in your opinion, are the advantages or disadvantages of this practice, and on what grounds do you base it? 50

10. Define the following terms:—Cross-over; Turn out; Cut and cover; Scissors-crossing; Camber; Crane-neck; Nose of crossing; Heel of switch. 50

(b) What is an interlocked station?

(c) How are expansion and contraction in a signal wire dealt with in a signal installation so as to minimise the effect on the range of movement of a Signal Arm?

IRRIGATION AND SANITARY ENGINEERING.

Examiners— { BABU CHUNILAL SARKAR, B.E.
 { A. F. HENDERSON, ESQ.

Only FOUR questions in each half to be attempted.

The questions are of equal numerical value.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

1. Discuss the advantages and disadvantages of taking an inundation canal from a 'Dhund' instead of from the main river. What determines the size of a canal? State what maximum and minimum velocities you would adopt for a canal in firm soil. Give reasons.

2. Give sketch of any weir across a river you know, which is founded on clay and coarse sand. Are well foundations always essential for such weirs? Can they be dispensed with, if a long talus were substituted? Give reasons.

3. Distinguish between a dam and a weir. How may the danger to which a weir is sometimes exposed of being breached by water flowing under it and undermining the foundation be met?

4. Why are falls necessary in some canals, and where should they be placed?

Give a dimensioned sketch of any masonry fall you know.

5. Write short notes, giving sketches where possible, on—Aqueduct, Syphon, Superpassage, Groyne, Tatis, and Duty of water.

6. How is an earthen dam made retentive of water? Give a sketch of an earthen dam for a reservoir.

SECOND HALF.

7. Describe what the following are, or mean:—

(a) Average dry weather flow.

(b) Inverted siphon.

(c) 100 feet head.

(d) Settling tank.

8. Sketch to the scale of about $\frac{1}{4}$ " to 1 foot a manhole, with side entrance, for a sewer 3' 0" in diameter. The side entrance is necessary owing to obstruction above. (See sketch).

9. A town of 40,000 inhabitants requires a new trenching ground. What area would you advise the Commissioners to acquire for an assumed population of 50,000 (taking 45 people to one cubic foot of night soil). Show how you arrive at the figure given, which should be in square feet.

10. A town of 60,000 people requires a new water-supply. The population may be assumed to reach 65,000 in 20 years. What would you advise—

(a) As the quantity of water to be supplied daily?

(b) The pumps, if worked 10 hours, give the required supply. What do you consider the capacity of the high level reservoir should be?

(c) What would be the probable maximum draw-off from the high level reservoir in any hour?

11. A town of 10,000 inhabitants with no likely increase requires a septic tank. What do you consider the capacity of such should be? (The figure given must be supported by calculations and explanations).

APPLIED MECHANICS.

Examiners— $\left\{ \begin{array}{l} \text{PROF. T. H. RICHARDSON, B.A., B.A.I.,} \\ \text{M.I.C.E.} \\ \text{D. H. REMFRY, ESQ.} \end{array} \right.$

Answer FOUR questions only in EACH half.

The questions carry fifty marks each.

Write the answers to the two halves in SEPARATE books.

Molesworth, Trautwine, Military Works Handbook and a Manufacturers' Handbook such as Dorman Long's may be used for this paper.

1. Design a mild steel stanchion 12' high with one end fixed to carry a load of 45 tons.

2. Design a sandstone bed-plate to carry a load of 45 tons on a brick-work pier.

3. A mild steel tie $8" \times \frac{1}{2}"$ carries a load of 28 tons and is spliced in the middle. Design the splice.

4. Justify the practice of designing the flanges of a plate girder to take the B.M. and the web to take the shear.

5. Show by an example how you would design a brick pier for a railway bridge, making any reasonable assumptions as to foundation-bed and loading.

SECOND HALF.

6. Find graphically the stresses in a roof truss as per sketch. Wind 20 lbs. per square foot acting at angle of 30° with the horizontal. Span 28 feet. Rise 8 feet. Trusses spaced 12 feet 6 inches apart.

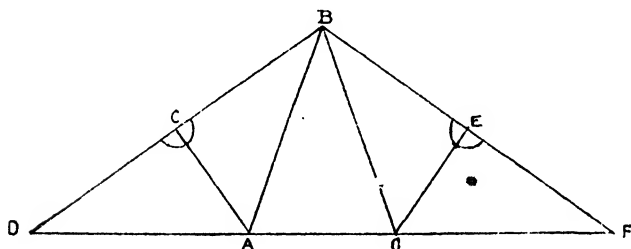
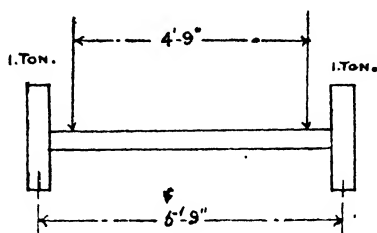
7. For such a truss as the above give details of the joint you would use at A.

8. Design purlins for a roof such as the above, having given:—Trusses spaced 12 ft 6 inches apart. Purlins spaced 8 ft. Covering corrugated iron sheeting.

9. Design a reinforced concrete slab for a span of 8 ft. to carry $1\frac{1}{2}$ cwt. per sq. ft. live load—using ordinary round rods for the reinforcement.

Discuss the relative advantages of using plain round rods, deformed rods, and expanded metal for reinforcements.

10. A trolley axle has to carry a load of 1 ton on each bearing. What section would you use for the axle?



HYDRAULICS.

Examiners— { PROF. T. H. RICHARDSON. B.A., B.A.I.,
M.I.C.E.
G. T. HUNTINGFORD, ESQ.

The figures in the margin indicate full marks.

Molesworth, Trautwyne, and Buckley may be used if brought by candidate.

Attempt only FOUR questions in each half.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

1. A slab culvert $1' \times 1'$ in section is 100' long

		Entrance.	Outlet.
Level of floor	..	101.00	100.00
Level of water	..	101.99	100.99

Find discharge taking C to be 100. What level will the water rise to at the entrance if an obstruction of the tail race raises the level of the outlet to $RL\ 101.01$?

2. Explain how the coef. of discharge of a suitably designed mouth-piece may be greater than unity.

What is the limit in theory, and why cannot this limit be reached in practice?

3. A pipe line is laid for the first 5000' with a hydraulic gradient of $\frac{1}{5000}$, for the second 5000' with a hydraulic grade of $\frac{1}{10000}$. What diameter of pipe would you lay for the second section if the first section was 24", and what would be the discharge?

4. Design a channel to discharge 50 cusecs, taking n in Manning's formula to be .021. What surface slope must it have to be both best discharging and non-silting?

5. Explain the hydraulic principles in designing an apron below a weir.

SECOND HALF.

6. On the up-stream side of a sluice five feet long the water stands 10 ft. above the floor of the sluice. The sluice opening extends from 2 ft. below up-stream water level to the floor. It is observed that the water level in the channel below is ultimately 3 ft. above the level of the floor of the sluice. What is the discharge?

What increase would there be in the discharge if the velocity of the up-stream water was 3 ft./sec. towards the sluice?

7. Into a lock 50 ft. long, 10 ft. wide and 20 ft. deep, water is admitted through a sluice in the upper gate. This sluice is 4 ft. wide and 2 feet deep and its sill is 4 ft. from the top of the upper gate which is flush with the water in the reach above. At the same time a sluice is opened in the lower gate. This sluice is 6 ft. wide and 2 ft. deep and its sill is 18 ft. from the top of the lower gate. The water in the lower reach is 6 ft. above the floor of the lock.

What will the depth of the water in the lock ultimately be?

8. What is the discharge down a channel with a bed slope of .0005, side slopes 2 to 1, bed width 10 ft. and depth 6 ft. ? $n = .020$.

What would be the diameter of a circular pipe to carry the same discharge when running full?

In the case of the pipe the conditions are the same as for the channel.

9. A vertical shutter 4 ft. long and 2 ft. high is able to turn, in a vertical plane, about a hinge. At what depth below the upper edge must this hinge be placed so that the shutter may just begin to turn over (a) when water is flush with the upper edge, on one side of the shutter; (b) when the water is three feet over the top of the shutter.

Friction is not to be taken into account.

10. A culvert consisting of 7 horizontal tunnels with square ends, 6 ft. diameter and 200 ft. long, has to discharge a flood of 950 c. ft./sec. If the water level on the up-stream side is 4 ft. above the top of the culvert, what will it be on the down-stream side?

ENGINES AND MACHINERY.

Examiners-- { PROF. C. A. KING, A.R.C.S., B.Sc.
T. LUSH, Esq.

Only THREE questions to be attempted in each half.

The questions are of equal numerical value.

FIRST HALF.

1. Find the weight of the rim of a flywheel, neglecting the effect of the boss and spokes, given the following data:—

(a) Speed of engine to be kept within 1 per cent above or below the mean speed of 120 revolutions per minute.

(b) Fluctuation of energy, as determined from a crank-effort diagram, 20 foot tons.

(c) Speed of rim at mean radius 70 ft. per sec.

2. An equal-armed Porter governor has the following dimensions:—

Each arm is 10 ins. long and is jointed to the axis of revolution at a horizontal distance of 2 ins. Each ball weighs 5 lbs. Find:—

(a) The load on the sleeve required to produce equilibrium at a speed of 200 revolutions per minute, when the distance between the sleeve joints and the top joints measured vertically is 16 ins.

(b) The speed of equilibrium for the configuration corresponding to a sleeve position 1 inch higher and also 1 inch lower than that given in (a).

3. Find the steam lap, the throw of the eccentric and the angle of advance so that cut-off takes place at 70 per cent. of the stroke for the instroke cycle, when the lead and the maximum port opening for steam are respectively $\frac{1}{8}$ inch and $1\frac{1}{4}$ inches. Neglect the obliquity of the eccentric rod. The connecting rod is five cranks long (You may use the Bilgram diagram).

4. A train weighs 400 tons. Calculate the horse-power required to produce an acceleration of 5 miles per hour in 40 seconds, first when the train is travelling at 5 miles per hour, and secondly when it is travelling at 70 miles per hour. Allow 7 per cent for rotating parts.

SECOND HALF.

Attempt THREE questions only.

5. An engine developing 217 I.H.P. uses 3,772 lbs. of water per hour. When the indicated horse-power is reduced to 102 by throttling the pressure of the steam supply, the consumption falls to 1,920 lbs. of water per hour. Assuming that the Willans law applies, find the constants of the Willans line for this engine. Also—

If the $I.H.P. = a \times b$ B.H.P. and the brake horse-power corresponding to the indicated horse-powers given above are respectively 209 and 97, calculate the probable brake horse power corresponding to a steam supply at the mean rate of 2,000 lbs. per hour (a and b are constants).

6. Sketch and describe some form of boiler with which you are familiar. Give a few of the main dimension and state the approximate horse power of the engine that it will drive. State whether you mean a condensing or a non-condensing engine and give both the B.H.P. and the I.H.P.

7. Describe as clearly as you can the work done by you in testing a steam-engine for B.H.P. and for I.H.P.

Give sketches where necessary, and be careful to state why this work is important and how it was done.

8. Give a diagrammatic sketch of some form of machine for testing steel in tension and explain clearly the method of carrying out a tensile test for mild steel. State approximately the results you would expect both as regards stress and extension.

9. Sketch the Fast Head-Stock of a Lathe with Speed Cone and Back Gear. Describe also the arrangement for screwcutting.

DRAWING.

Examiners— { D. R. G. TURNBULL, ESQ.
 { B. G. GWYTHYR, ESQ.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

1. The floor of an upper room measuring 20' x 10' in a building 40
under construction is to be of reinforced concrete, with expanded
metal and concrete in cement. Draw to a scale of one inch to the
foot a longitudinal and also a cross section of the floor showing the
whole arrangement necessary for its construction.

2. In Plate I is an outer wall *A*, and two inner walls *B* of a build- 35
ing to be constructed. Draw to a scale of one inch to the foot the
foundations you should give to the walls *A* and *B* for their construc-
tion on good soil in the neighbourhood of Calcutta at a depth of 4'.6"
below ground level.

3. In rooms, 22' x 14' x 15' high, of a building under construction, 25
it is found that the joists supporting the floor above fall over clerestory
window openings 4' x 2' high: the thickness of these brick walls
are 1'.5", and the space between the bottom of the joist and top of
the clerestory window is only 8". Draw to a scale of 1½" to a foot a
section through the opening with portion of the room showing the
arrangement proposed for the safe support of the joist.

SECOND HALF.

4. For a queen-post truss of span 35' make a detailed sketch to a 40
scale ¼" = 1 foot of the following:—

(a) The junction of the tie beam, principal rafter, common rafter,
wall plate, and pole plate.

(b) The junction of the straining beam, queen-post, principal
rafter, and purlin.

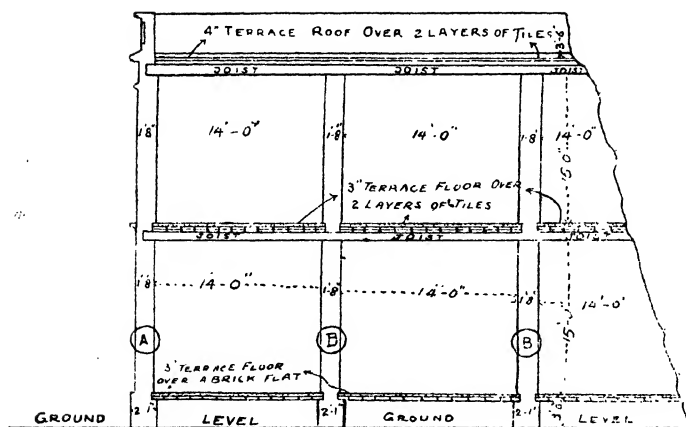
5. Make a rough pencil sketch of any two of the following:— 40

(a) Coupling box.

(b) Stringer.

(c) Countersunk rivet.

(d) Winder.



M.A. Examination.

1917.

ENGLISH.

FIRST PAPER.

FIRST HALF.

Examiner—RAKHAI DAS GHOSH, ESQ., M.A.

The questions carry equal marks.

Write the answers to the two halves in SEPARATE books.

Answer any THREE questions.

Candidates are required to give their answers in their own words as far as practicable.

1. Sketch the history of Anglo-Saxon poetry from Caedmon to Cynewulf. What were the new elements added by Christianity to the spirit of Anglo-Saxon poetry? Show how Anglo-Saxon poetry after the introduction of Christianity exhibits a fusion of the new elements with the old Pagan spirit.

2. Give an estimate of the genius of Langland. Analyse the plot of the Vision of Piers the Plowman and characterise it as a literary production. In what relation does Langland stand to contemporary movements in religious thought?

3. Give an account of the work of Wyatt and Surrey, and sketch the history of English lyrical poetry from the age of Elizabeth to the end of the Puritan age, including in the survey the type known as the sonnet.

4. Characterise the prose style of Sidney, Hooker, Milton, and Jeremy Taylor, and point out the general characteristics of Elizabethan prose literature, and trace the development of English prose style from the Elizabethan age to the age of Queen Anne.

5. Show the importance of the work of Sir Philip Sidney in the field of English literary criticism and trace the development of English literary criticism from the Elizabethan age to the age of Queen Anne.

6. Give a critical estimate of the Restoration drama with especial reference to Dryden as the representative dramatist of the period, noting in the case of Dryden the transition from the use of the rhymed couplet to blank verse, and discuss the following criticism: "His plays, his rhyming plays in particular, are admirable subjects for those who wish to study the morbid anatomy of the drama."

7. Write a critical appreciation of Milton's Paradise Lost. In what sense can it be regarded as the epic of Puritanism? Show how the

Renaissance and the Puritanic veins are blended in Milton's poetry, and bring out its wealth of classical suggestion and reminiscence. Discuss the scheme, subject-matter and style of the *Paradise Lost*, and discuss Mathew Arnold's criticism of Milton as "the one artist of the highest rank in the great style" in English literature.

8. Give an estimate of the genius of Dryden as a satirist. Distinguish the two species of satire, viz. the political and the personal, in the satirical poetry of Dryden. Make a detailed examination of Butler's *Hudibras* and Dryden's *Absalom and Achitophel* as masterpieces of satire.

9. Compare Addison and Swift as humorists.

10. Write a critical appreciation of Pope's *Essay on criticism* and show how Pope's poetry exhibits the typical characteristics of the so-called classical poetry of the eighteenth century in their utmost perfection.

11. State what you know of the following:—

The Wanderer, *Historia Britonum*, *Orinulum*, The Ship of Fools, *Confessio Amantis*, The Hind and the Panther, Cooper's Hill, Anatomy of Melancholy, *Religio Medici*.

SECOND HALF.

Examiner—S. N. BHADRA, ESQ., M.A.

Answer THREE questions, of which the last must be one.

12. Trace briefly the development of Satire in England from Skelton to Byron.

13. Estimate the importance in the history of English literature of the publication of any two of the following:—

(a) *Percy's Reliques*.

(b) Coleridge's *Biographia Literaria*;

(c) Wordsworth's Prefaces to the lyrical Ballads.

(d) Darwin's *Origin of Species*.

14. Trace the growth and development of Periodical Literature in England.

15. Discuss Byron's position in literature with regard to his contemporaries of the Romantic Revival.

16. Give some account of the Profession of Letters in England in Dr. Johnson's time. To what causes would you attribute the pre-eminent position occupied by Dr. Johnson among contemporary men of letters.

17. Compare Dickens and Thackeray as novelists.

Or,

Froude and Macaulay as historians.

18. Account for the extraordinary literary activity of the 19th century. To what extent and in what ways was this an expression of the ideas and sentiments underlying the event or rather the series of events known as the French Revolution?

19. How do you account for the fact that the literature of England of the age of Elizabeth found its characteristic expression in the *drama* and of the 19th century in the *novel*?

20. Describe briefly, naming the author in each case, any four of the works in the following list:—

(a) *Venice Preserved*;

(b) *Mac Fleckure*,

(c) *Rejected Addresses*;

- (d) The New Republic :
- (e) Drapier's Letters ;
- (f) Atalante in Calydon ;
- (g) Apologia pro vita sua ;
- (h) Hydriotaphia ;
- (i) Andrea del Sarto.

ENGLISH.

SECOND PAPER.

Examiner—DR. H. C. MUKHERJEE, M.A., PH.D.

Write the answers to the two halves in SEPARATE books.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Answer question 6 and any TWO questions out of the first five.

1. Briefly discuss the various views that have been held about the question of Hamlet's insanity. What is your own opinion ? 10
2. Sketch the character of Hermione. 10
3. Enumerate the allusions to contemporary writers made by Ben Jonson in *Every Man in His Humour*. 10
4. Describe the peculiarities of Sheridan as a comedian. 10
5. Explain how the three unities are observed by Mathew Arnold in *Merope*. 10
6. Elucidate with full reference to the context any six of the following passages, at least one being taken from each group : — 30

GROUP A.

(i) Your ladyship is nearer to heaven than when I saw you last, by the attitude of a chopine. Pray God, your voice, like a piece of uncurrent gold, be not cracked within the ring.

(ii) Three of the carriages, in faith, are very dear to fancy, very responsive to the hilts, most delicate carriages, and of very liberal conceit.

GROUP B.

(iii) Thou want'st a rough pash and the shoots that I have,
To be full like me ; yet they say we are
Almost as like as eggs.

(iv) My father named me Antolycus, who being, as I am, littered under Mercury, was likewise a snapperup of unconsidered trifles.

GROUP C.

- (v) Why should he think I tell my apricots,
Or play the Hesperian dragon with my fruit,
To watch it ?

(vi) This smoky varnish being washed off, and three or four patches removed, I appear your worship's in reversion, after the decease of your good father, Brainworm.

GROUP D.

(vii) But to be monkey-led for a night !—to run the gauntlet through a string of amorous palming puppies !—to show paces like a managed filly !

(viii) Thus, like garden trees, they seldom show fruit, till time has robbed them of the more specious blossom.

GROUP E.

- (ix) Come, lightning passion, that with foot of fire
Advancest to the middle of a deed
Almost before 'tis plann'd.
- (x) Some solitude more inaccessible
Than the ice-bastion'd Caucasian Mount
Chosen a prison for Prometheus, climb !

SECOND HALF.

7. Write a short note on Shakespeare's use of prose and verse, 10
illustrating your answer by references to the text.

8. Elucidate any *three* of the following :— 40

- (i) What luck I did not send him into France !
They would have given him generous education,
Taught him another garb, to wear his lock
And shape as gaudy as the summer ; how
To dance and wag his feather *à la mode*,
To compliment, and cringe ; to talk not modestly.
Like *ay forsooth* and *no forsooth*, to blush,
And look so like a chaplain. There he might
Have learned a brazen confidence, and observed
So well the custom of the country, that
He might, by this time, have invented fashions
For us, and been a benefit to the kingdom ;
Preserved our tailors in their wits, and saved
The charge of sending into foreign courts
For pride and antic fashions.
- (ii) The forts that favourites hold in princes' hearts,
In common subjects' loves, and their own strengths,
Are not so sure and inexpugnable,
But that, the more they are presumed upon,
The more they fail ; daily and hourly proof
Tells us prosperity is at high'st degree
The fount and handle of calamity ;
Like dust before a whirlwind those men fly
That prostrate on the grounds of fortune lie :

And being great, like trees that broadest sprout,
 Their own top-heavy state grubs up their root
 These apprehensions startle all my powers,
 And arm them with suspicion 'gainst themselves.
 In my late projects I have cast myself
 Into the arms of others, and will see
 If they will let me fall, or toss me up
 Into th' affected compass of a throne.

- (iii) Be circumspect, for to a credulous eye
 He comes invisible, veiled with flattery :
 And flatterers look like friends, as wolves like dogs.
 And as a glorious poem, fronted well.

ENGLISH.

THIRD PAPER.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—M. GHOSH, ESQ., M.A.

1. Explain, with reference to the context :—
 - (a) How that one Frenchman through continued force 5
 Of meditation on the inhuman deeds,
 Of those who conquered first the Indian isles
 Went single in his ministry across
 The ocean How Gustavus sought
 Help at his need in Dalecarlia's mines.

Or,
 - (b) And with uplifted eyes beheld. 5
 In different quarters of the bending sky,
 The cross of Jesus stand erect, as if
 Hands of angelic powers had fixed it there,
 Memorial reverenc'd by a thousand storms :
 Yet then from the indiscriminating sweep,
 And rage of one State-whirlwind insecure.
 - (c) Explain the context, elucidating carefully each allusion— 5
 There was Ixion turned on a wheele
 For daring tempt the Queene of heaven to sin :
 And Sisyphus a huge round stone did reele
 Against a hill no might from labour lin ;
 There thirsty Tantalus hang by the chin.
 And Tityus fed a vulture on his maw ;
 Typhoeus' joints were stretched on a gin.

Or,

- (d) Put into modern English the Spenserian language of the following, explaining the context:— 5

So beene they both at one, and doen upreare
 Their bevers bright each other for to greet; ;
 Goodly comportance each to other beare,
 And entertaine themselves with court'sies meet.
 Then said the Red-Crosse Knight; Now mote I weat.
 Sir Guyon, why with so fierce saliaunce,
 And fell intent ye did at erst me meet:
 For sith I know your goodly governaunce.
 Great cause, I weene, you guided or some uncouth chaunce.

- (e) Explain with reference to the context, and comment on the beauty of— 5

I am going a long way
 With these thou seest, if indeed I go
 (For all my mind is clouded with a doubt)
 To the island valley of Avilion:
 Where falls not hail or rain or any snow,
 Nor ever wind blows loudly; but it lies
 Deep-meadow'd, happy, fair with orchard lawns
 And bowery hollows crown'd with summer sea,
 Where I will heal me of my grievous wound.

Or,

- (f) Explain the exact point and beauty of both the following similes— 5

And as the sweet voice of a bird
 Heard by the lander in a lonely isle,
 Moves him to think what kind of bird it is
 That sings so delicately clear, and make
 Conjecture of the plumage and the form:
 So the sweet voice of Enid mov'd Geraint;
 And made him like a man abroad at morn
 When first the liquid note beloved of men
 Comes flying over many a windy wave
 To Britain and in April suddenly
 Breaks from a coppice gemm'd with green and red
 And he suspends his converse with a friend
 Or it may be the labour of his hands
 To think or say "There is the nightingale."

2. (a) State which in your opinion is the truer criticism of Spenser; Ben Jonson's, that "in affecting the ancients he writ no language"; or Kirke's, that his archaic diction "is a great ornament, which maketh the stile seem grave and as it were reverend." 9

Describe briefly the elements of English which Spenser tried to fuse in order to give his language reach, freshness, distinction.

Or,

- (b) Discuss the structure and originality of the Spenserian stanza, comparing Spenser's handling of it with that of succeeding poets.

3. (a) State with your own comments Wordsworth's condemnation of the education of children in his time. 8

Or,

- (b) Distinguish in Wordsworth's account of his school-time the nascent poet and the country school-boy. 8

4. (a) Contrast carefully in the Idylls the following sets of characters: Galahad and Percivale; Lancelot and Tristram; Etarre and Guinevere. 8

Or,

(b) Distinguish between Tennyson's handling of the earlier and later Idylls of the King. 8

5. Explain one only of the two following passages:—

(a) 'A monstrous eft was of old the Lord and Master of Earth; 10

For him did his high sun flame and his river billowing ran.
And he felt himself in his force to be Nature's crowning race,
As nine months go to the shaping an infant ripe for his birth
So many a million of ages have gone to the making of man:
He now is first, but is he the last? is he not too base?
The man of science himself is fonder of glory, and vain,
An eye well practis'd in Nature, a spirit bounded and poor:
The passionate heart of the poet is whirl'd into folly and vice.

I would not marvel at either but keep a temperate brain;
For not to desire or admire, if a man could learn it were more

Than to walk all day like the Sultan of old in a garden of spice.

(b) She has a world of ready wealth 10

Our minds and hearts to bless,
Spontaneous wisdom breath'd by health,
Truth breath'd by cheerfulness.

One impulse from a vernal wood

May teach you more of man.

Of moral evil and of good.

Than all the sages can.

Sweet is the love which Nature brings

Our meddling intellect.

Misshapes the beauteous forms of things

We murder to dissect.

SECOND HALF.

Examiner—ASUTOSH CHATTERJEE, ESQ., M.A.

6. Explain the following remark:— 6

"In *Lycidas* Milton out-distances all previous English elegy almost as easily as in *Comus* he had out-distanced all the earlier marks."

Or,

Discuss the biographical interest of Milton's sonnets.

7. Attempt a comparative study of Gray and Collins as lyrical poets. 6

Or,

Elucidate the poetical sentiments of the following poems:—

To a Mouse (Burns); *Ode on the Spring* (Gray); *Auld Robin Gray* (Lindsay); *The Castaway* (Cowper).

8. Annotate any two of the following extracts, noticing all difficulties of language and thought:— 8

(a) And in thy right hand lead with thee
The mountain-nymph, sweet Liberty;

And if I give thee honour due
 Mirth, admit me of thy crew,
 To live with her, and live with thee
 In unprovoked pleasures free :
 To hear the lark begin his flight
 And singing startle the dull night
 From his watch-tower in the skies.
 Till the dappled dawn doth rise :
 Then to come, in spite of sorrow,
 And at my window bid good morrow
 Through the sweet-briar, or the vine,
 Or the twisted eglantine.

- (b) O Music! sphere-descended maid,
 Friend of Pleasure, Wisdom's aid!
 Why, goddess! Why, to us denied.
 Lay'st thou thy ancient lyre aside?
 As in that loved Athenian bower,
 You learn'd an all-commanding power.
 Thy mimic soul, O Nymph endear'd,
 Can well recall what then it heard.
 Where is thy native simple heart
 Devote to Virtue, Fancy, Art?
 Arise, as in that elder time,
 Warm, energetic, chaste, sublime!
 Thy wonders, in that god-like age.
 Fill thy recording Sister's page:—
 "Tis said, and I believe the tale.
 Thy humblest reed could more prevail.
 Had more of strength, divinest rage.
 Than all which charms this laggard age:
 O bid our vain endeavours cease:
 Revive the just designs of Greece:
 Return in all thy simple state!
 Confirm the tales her sons relate!

- (c) The verse adorn again
 Fierce war, and faithful love.
 And truth severe, by fairy fiction drest.
 In baskin'd measures move
 Pale grief, and pleasing pain.
 With horror, tyrant of the throbbing breast.
 A voice as of the cherub-choir
 Gales from blooming Eden bear.
 And distant warblings lessen on my ear,
 That lost in long futurity expire.

UNSEEN.

9. Bring out the meaning of *two* of the following extracts and 3) make separately suitable comments on the style of the passages you select:—

- (a) How sweet I roamed from field to field,
 And tasted all the summer's pride.
 Till I the Prince of Love beheld
 Who in the sunny beams did glide.
 He showed me lilies for my hair,
 And blushing roses for my brow;

He led me through his gardens fair
 Where all his golden pleasures grow.
 With sweet May-dews my wings were wet,
 And Phoebus fired my vocal rage;
 He caught me in his silken net,
 And shut me in his golden cage.
 He loves to sit and hear me sing,
 Then, laughing, sports and plays with me;
 Then stretches out my golden wing,
 And mocks my loss of liberty.

- (b) In vain to me the smiling Mornings shine,
 And reddening Phoebus lifts his golden fire;
 The birds in vain their amorous descant join;
 Or cheerful fields resume their green attire;
 These ears, alas! for other notes repine,
 A different object do these eyes require;
 My lonely anguish melts no heart but mine;
 And in my breast the imperfect joys expire.
 Yet Morning smiles the busy race to cheer,
 And new born pleasure brings to happier men;
 The fields to all their wonted tribute bear;
 To warm their little loves the birds complain;
 I fruitless mourn to him that cannot hear;
 And weep the more because I weep in vain.
- (c) Unnumber'd suppliants crowd Preferment's gate.
 Athirst for wealth, and burning to be great;
 Delusive Fortune hears the incessant call;
 They mount, they shine, evaporate and fall.
 On every stage the foes of peace attend;
 Hate dogs their flight, and insult mocks their end;
 Love ends with hope; the sinking statesman's door
 Pours in the morning worshipper no more;
 For growing names the weekly scribbler lies,
 To growing wealth the dedicator flies;
 From every room descends the painted face,
 That hung the bright palladium of the place,
 And smoked in kitchens, or in auction sold,
 To better features yields the frame of gold;
 For now no more we trace in every line
 Heroic worth, benevolence divine;
 The form distorted justifies the fall,
 And detestation rids the indignant wall.

ENGLISH.

FOURTH PAPER.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—P. C. GHOSH, Esq., M.A.

1. Indicate the principal sources from which Chaucer may be presumed to have drawn for poetical suggestion or literary culture, and show how "without ceasing to be English, he has escaped from being insular." 15

Or,

Give a summary of Lowell's account of New England Transcendentalism, and explain what he means by saying that Carlyle and Emerson represent "those grand personifications in the drama of Eschylus, *Bia* and *Kḗptos*."

2. Explain the relation in which the *Advancement of Learning* stands to the other philosophical writings of Bacon. What place does it occupy in his projected *Instauratio*? 15

Or,

Summarise Bacon's remarks on 'Poesy' and estimate the value of his contribution to Poetics.

3. Analyse the arguments contained in the following passage and comment on them in the light of what you have read on the same subject in the *Advancement of Learning*:— 20

I do certainly for my own part incline to this opinion,—that beneath no small number of the fables of the ancient poets there lay from the very beginning a mystery and an allegory. It may be that my reverence for the primitive time carries me too far, but the truth is that in some of these fables, as well in the very frame and texture of the story as in the propriety of the names by which the persons that figure in it are distinguished, I find a conformity and connexion with the thing signified, so close and so evident, that one cannot help believing such a signification to have been designed and meditated from the first, and purposely shadowed out.... But there is yet another sign, and one of no small value, that these fables contain a hidden and involved meaning; which is, that some of them are so absurd and stupid upon the face of the narrative taken by itself, that they may be said to give notice from afar and cry out that there is a parable below. For a fable that is probable may be thought to have been composed merely for pleasure, in imitation of history. But when a story is told which could never have entered any man's head either to conceive or relate on its own account, we must presume that it had some further reach.... But the consideration which has most weight with me is this, that few of these fables were invented, as I take it, by those who recited and made them famous—Homer, Hesiod, and the rest.... It will appear upon an attentive examination that they are delivered not as new inventions then first published, but as stories already received and believed. And since

they are told in different ways by writers nearly contemporaneous, it is easy to see that what all the versions have in common come from ancient tradition, while the parts in which they vary are the additions introduced by the several writers for embellishment—a circumstance which gives them in my eyes a much higher value: for so they must be regarded as neither being the inventions nor belonging to the age of the poets themselves, but as sacred relics and light airs breathing out of better times, that were caught from the traditions of more ancient nations and so received into the flutes and trumpets of the Greeks.

[Bacon: *On the Wisdom of the Ancients*].

SECOND HALF.

Examiner—F. W. SUDMERSON, ESQ., M.A.

4. Explain *two* of the following, showing their connection with Brocke's argument:— 8

(a) Political reason is a computing principle; adding, subtracting, multiplying, and dividing, morally and cut metaphysically or mathematically, true moral denominations.

(b) The public, whether represented by a monarch, or by a senate, can pledge nothing but the public estate: and it can have no public estate, except in what it derives from a just and proportioned imposition upon the citizens at large.

(c) To a man who acts under the influence of no passion, who has nothing in view in his projects but the public good, a great difference will immediately strike him, between what policy would dictate on the original introduction of such institutions, and on a question of their total abolition, where they have cast their roots wide and deep.

5. Burke "declared that the methods of the Constituent Assembly, up to the summer of 1790, were unjust, precipitate, destructive and without stability. Men had chosen to build their house on the sands, and the winds and the seas would speedily beat against it and overthrow it. His prophecy was fulfilled to the letter. What is still more important for the credit of his foresight is, that not only did his prophecy come true, but it came true for the reasons that he had fixed upon." Justify this view. 7

6. Elucidate *three* of the following:— 15

(a) Love is a discerning of the Infinite in the Finite, of the Idea made Real; which discerning again may be either true or false, either seraphic or demoniac, Inspiration or Insanity.

(b) Now the genius of Mechanism smothers man worse than any nightmare did.

(c) A certain touch of Manicheism, not indeed in the gnostic shape, is discernible enough in the Daudiacal sect.

(d) Painful for man is rebellious Independence when it has become inevitable.

UNSEEN PASSAGES.

7. Give the substance of the following in your own words, and comment on the intellectual characteristics they indicate:— 20

(a) Metaphysical speculation, if a necessary evil, is the forerunner of much good. The fever of scepticism must needs burn itself out, and burn out thereby the Impurities that caused it: then again will

there be clearness, health. The principle of life, which now struggles painfully, in the outer, thin and barren domain of the Conscious or Mechanical, may then withdraw into its inner sanctuaries, its abysses of mystery and miracle; withdraw deeper than ever into that domain of the Unconscious, by nature infinite and inexhaustible; and creatively work there. From that mystic region, and from that alone, all wonders, all Poesies, and religious, and social systems have proceeded; the like wonders, and greater and higher, lie slumbering there: and brooded on by the spirit of the waters, will evolve themselves, and rise like exhalations from the Deep.

(b) In morals as in all things else, difficulties will sometimes occur. Duties will sometimes cross one another. Then questions will arise, which of them is to be placed in subordination: which of them may be entirely superseded? These doubts give rise to that part of moral science called *casuistry*; which, though necessary to be well studied by those who would become expert in that learning, requires a very solid and discriminating judgment, great modesty and caution, and much sobriety of mind in the handling; else there is a danger that it may totally subvert those offices which it is its object only to methodize and reconcile. Duties, at their extreme bounds, are drawn very fine, so as to become almost evanescent. In that state some shade of doubt will always rest on these questions, when they are pursued with great subtilty. But the very habit of stating these extreme cases is not very laudable or safe: because, in general, it is not right to turn our duties into doubts. They are imposed to govern our conduct, not to exercise our ingenuity: and therefore, our opinions about them ought not to be in a state of fluctuation, but steady, sure and resolved.

ENGLISH

GROUP A.

FIFTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—SUNITIKUMAR CHATTERJEE, ESQ., M.A.

1. Annotate fully, with reference to the context, *nine* passages, as indicated below:—

A. THREE PASSAGES.

9

- (i) But al be that he was a philosopfre
Yet hadde he but litel gold in cofre.
- (ii) Of his complexioun he was sangwyn....
Seint Iulian he was in his contree.

- (iii) *He kepte his pacient a ful greet del
In houres, by his magik naturel.
- (iv) To seken him a chaunterye for soules,
Or with a bretherheed to been withholde.
- (v) * 'Purs is the erchedeknes helle', seyde he.
But wel I woot, he lyed right in dede.

B. TWO PASSAGES.

8

- (i) Wostow nat wel the olde clerkes sawe
That who shal yeve a love any lawe ? . . .
And therfore positif lawe and swich decree
Is broken al day for love, in ech degree.
- (ii) Nat oonly like the loveris maladye
Of Hereos, but rather lyk manye
*Engendred of humour malencolik,
Biforn, in his owene celle fantastik.
- (iii) The Firste Moevere of the cause above.
*Whan he first made the faire cheyne of love,
Greet was theeffect and heigh was his entente.

C. TWO PASSAGES.

6

- (i) *And gode, faire WHYTE she heet.
That was my lady name bright.
- (ii) And bidde him faste, anon that he
Go hoodles to the drye see,
And come hoom by the Carrenare.
- (iii) I trowe hit was in the dismalle,
That was the ten woundes of Egipte.

D. TWO PASSAGES.

6

- (i) As, wry the glee, and hotter is the fy:
Forbede a love, and it is ten so wood.
- (ii) If that I live, thy name shal be shove
In English, that thy sleighte shal be knowe!
Have at thee, Iasoun! now thy horn is blowe!
- (iii) And in the signe of Taurus men may see
The stones of her coroun shyne clere.

2. Scan any *two* of the lines marked with an asterisk in Question 1, or give the Chaucerian pronunciation of knight, courages, wood, space. 2

3. *Either,* 5

Write *full* etymological notes on *five* of the following words—husbond, Frensh, marshal, dongeroun, fee, hauberk, fette, lodemonge, herberwe, gaol.

Or,

Explain *five* of the following:—

The infortune of Marte. For tho thre formes that thou hast in thee. In Stace of Thebes. The soley n fenix of Arabye. The Kynges metyng Phrao. Argus the noble countour. Within a throwe. Whan that the mone upreysed had his light. A solempne and greet fraternitee. A thombe of gold.

4. Answer any *two* of the following:—

10

- (i) Explain *fully three* of the following:—
sell—pret. *sold*; *tooth*—pl. *teeth*; *rise*—causative *rear*;
go—pret. *went*; *can*—pret. *could*.
- (ii) Give the main characteristics of the Teutonic branch of the Indo-European stock of languages.
- (iii) What are the chief points of difference between the Southern and Northern Dialects of Middle English?
- (iv) Give some account of the Relative Pronoun in English, or write a note on the Present and Past Participial forms in English.
- (v) Comment on *five* of the following expressions:—
 I told 'em so, the more the merrier, lambren, alderliest, older and elder, rather, whether, not, caught.

5. Explain *four* of the following constructions:—

4

- (i) Where the billow mournful rolls.
- (ii) The book never sold.
- (iii) In his heart of hearts.
- (iv) His owne hande than made he laddres thre.
- (v) Sow well, reap well.
- (vi) A knight of King Arthur's.
- (vii) Whose direful hand gave him the mortal wound
- (viii) I have not past a two shillings or so.

Or,

Write a note on the Passive Construction in English, or give some instances of the substantive use of adjectives.

SECOND HALF.

Examiner—SATISHCHANDRA DE. ESQ., M.A.

6. Answer any *two* of the following three questions:—

10

- (a) What were Chaucer's obligations to Boccaccio?
- (b) Examine—"Already in this Book of the Duchess Chaucer is in some measure an original poet."
- (c) Discuss—"The satire of Chaucer is always as good-humoured as it is humorous."

7. Translate into Modern English *four* of the following five passages with philological, grammatical, and metrical notes wherever necessary:—

40

- (a) Placbo seyde, O Ianuarie, brother,
 Ful litel nede had ye, my lord so dere,
 Conseil to axe of any that is here;
 But that ye been so ful of sapience,
 That yow ne lyketh, for your heighe prudence,
 To weyven fro the word of Salomon,
 This word seyde he un-to us everichon:
 "Wirk alle thing by Conseil," thus seyde he,
 "And thanne shaltow nat repente thee."
 But though that Salomon spak swich a word,
 I hold your owene conseil is the beste.
- (b) Among these othre of Slowthes kinde,
 Which alle labour set behinde,

And hateth alle besennesse.
 Ther is yit on, which ydelnesse
 Is cleped, and is the Norrice
 In mannes kinde of every vice,
 Which secheth eases manyfold.
 In Wynter doth he noght for cold.
 In Somer mai he noght for hete;
 So whether that he frese or swete,
 Or he be inne, or he be oute,
 He wol ben ydel al aboute,
 Bot if he pleie oght ate Dees.

- (c) Reson me bad and redde as for the beste.
 To ete and drynke in tyme attemprely;
 But wilful youthe nat obeie leste
 Un-to that reed ne sette nat therby.
 I take have of hem bothe outrageously
 And out of tyme nat two year or three.
 But .XXⁱ. wyntir past continually.
 Excesse at borde hath leyd his knyf with me.

The custome of my reprolet abstinence,
 My greedy mowth. Receite of swich outrage.
 And hondes two as woot my negligence,
 Thus han me gyded and broght in servage
 Of hire that werreiech every age.
 Secknesse, y meene, riotoures whippe
 Habundantly that paieth me my wage.
 So that me neithir daunce list, ne skippe.

- (d) For leuyr I had to deien sodeinli,
 Than yow offend in any manor wise,
 And suffre paynes inward prively.
 Than my servise ye shuld as now despise.
 For I right nought wil asken in no wise.
 But for youre servaunt ye would me accepte,
 And, whan I trespace, goodli me correcte.

And forto graunt, of inerci, this praier,
 Oonli of grac and womanli pete.
 Fro dai to dai that I myghte lere
 Yow forto please, and therewithal that ye.
 When I do mys, list for to teche me.
 In youre servys, hou that I mai amende
 From hens-forthe, and neuyr yow offende.

(c) I sey yow, that the surgions and phisiciens han soyd vow in your conseil discretely, as hem oughte; and in hir speche seyden ful wysly, that to the office of hem aperteneth to doon to every wight honour and profit, and no wight for to anye; and, after hir craft, to doon greet diligence un-to the reire of hem whiche that they han in hir governaunce. And Sir, right as they han answered wysly and discretely, right so rede I that they been heighly and sovereynly guerdoned for hir noble speche; and oek for they sholde do the more ententif besnesse in the curacioun of your doghter dere.

ENGLISH.

GROUP A.

SIXTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—J. W. HOLME ESQ., M.A.

Answer THREE questions only.

The questions are of the same numerical value.

1. Summarise the evidence for and against the Shakspearean authorship of the three parts of *King Henry the Sixth*. What light does such evidence throw upon the customary methods of Elizabethan dramatic authorship?

2. How far is it safe to assume any intimate connection between known incidents in Shakspeare's life and his literary work? Illustrate your answer by special reference to *Hamlet*, *Timon of Athens*, and *The Tempest*.

3. Contrast the poetical styles of Shakspeare's three Roman plays, and their respective relations to Plutarch's *Lives*.

4. Illustrate, by means of *The Comedy of Errors*, *The Winter's Tale*, and *The Tempest*, Shakspeare's development as a fashioner of comic plot and character.

5. Discuss briefly Shakspeare's use of the devices (a) of involving innocent persons in tragic catastrophe and (b) of "poetic justice" in tragedy.

6. "In his plays, Shakspeare writes first lyrically, then rhetorically, and finally dramatically." How far can you justify this?

7. What is the nature of the services rendered by the following to Shakspearean study?—Rome, Johnson, Coleridge, Furness, and Bradley?

SECOND HALF.

Examiner—PRAPHULLACHANDRA RAY, ESQ., M.A.

Only THREE questions to be attempted, of which either 12 or 13 must be one.

The questions carry equal marks.

8. Discuss: Miracle-plays passed through Moralities into the modern Romantic Drama.

9. Discuss the favourableness of the Elizabethan Age for the exercise of great dramatic genius.

10. Comment on the heterogeneous character of the Elizabethan Drama, so far as its material is concerned, and on its unity in variety.

11. Trace the gradual employment of the modern Blank Verse into English dramas.

12. Show your acquaintance with any *two* of the following plays, naming the date of publication and the author, and giving a sketch of the plot :—

Old Wives' Tale, Woman in the Moon, Sejanus, The Changeling, Duchess of Malfi, A new way to pay old debts.

13. Write a short estimate of *one* of the following dramatists with specific reference to his works :—

Robert Greene, Thomas Middleton, George Chapman.

ENGLISH.

GROUP A.

SEVENTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books

FIRST HALF.

Examiner—DR. H. STEPHEN, M.A., PH.D.

1. Give an account of the principal literary works rising *either* (a) 9
out of the Religious Movements of the period 1850-70, *or* (b) out of the
Philosophical and Scientific Movements.

2. State and explain fully Ruskin's view of the relation between 11
Aesthetics and Ethics, and of the ethical significance of Gothic and
Renaissance architecture.

3. *Either.* 10

(a) State clearly M. Arnold's view as to the meaning and use of
Literary Criticism, and as to what is best in literature, and give your
own opinion of Arnold as a critic, with reasons.

Or,

(b) What does M. Arnold consider to be the characteristics of the
'Celtic Spirit' in literature? Show how, according to him, the 'Celtic
Spirit' has affected English literature.

4. *Either.* 10

(a) Explain the meaning and origin of Pro-Raphaelitism in
general, and explain and illustrate its application in literature.

Or,

(b) Give in your own words the substance *either* (1) of Ruskin's
teaching regarding, 'The Roots of Honour,' and 'The King's Treasuries'; *or* (2) of J. S. Mill's teaching 'On Liberty of Thought and

Discussion,' and 'On Individuality as an Element of Well-Being'; or (3) of Carlyle's estimate of 'Our Own Time,' and of 'Parliaments.'

5.

Either,

10

(a) Explain and discuss the teaching of Froude as to whether History is a Science, and as to the uses of Historical Study, comparing his view of History with that of Buckle.

Or,

(b) It has been said regarding Carlyle that "Conventionality is to him the deadly sin," and that "He judges by intuition instead of calculation": explain the precise meanings, and discuss the justice of these statements.

Or,

(c) Give in your own words a summary of any historical incident from the works of *either* Macaulay, *or* Carlyle, *or* Froude, with some imitation of the author's style.

Or,

(d) Sketch J. H. Newman's view of the functions of a University, and of University Professors and Tutors.

SECOND HALF.

Examiner—T. S. STERLING, ESQ., M.A.

Answer question 12 and three others.

6. Show how George Eliot portrays life and analyses character.
7. Give an account of Dickens's favourite types of character.
8. In what does the strength of Charlotte Brontë as a novelist lie?
9. Examine the charge of cynicism brought against Thackeray.
10. Describe briefly the various types of novels written during the period 1850-1870.
11. Write a critical estimate of the novels of one of the following authors:—
(a) Meredith, (b) Charles Reade.
12. Show your acquaintance with *one* of the following novels:—
"Cranford"; "The Newcomes"; "Barchester Towers"; "Our Mutual Friend"; "The Virginians."

ENGLISH.

GROUP A.

EIGHTH PAPER.

Examiner—J. R. BARROW, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Write an Essay on *one* of the following subjects:—

- (1) "A reader should have preferences but no exclusions."
- (2) Translation.
- (3) The place of the Arts in Education.
- (4) Poetry and Prose—their functions and their differences.

ENGLISH.

GROUP B.

FIFTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—SUNITIKUMAR CHATTERJEE, ESQ., M.A.

PROSE.

Answer questions 1 and 7, and THREE others.

1. Translate *three* of the following passages:—

12

(i) Eadward kynge grēt wel Wulfwi biſcōp and Lēofwine eorl, and ealle mine þeignes on Hoortfordſciro frēondlice; and ic kēpe ēow þæt Lēofsi Duddu sunu hafað gegiven Crīste and Sancte Petre intō Westmynstre *þridde healre* hīde landes æt Wurmlēa be mīnre gelēafan and be mīnre *unnan*. God ēow gehealde.

(ii) And mon þone lichaman on *mergen* ferode tō Lundene, and þā biſceopas Eadnōþ and Ælfhūn and sēo *buruhwara* hine underfēngon mid ealre ārwurðnyſſe, and hine bebyrigdon on Sancte Pāules mynstre; and þā r nū God *sutelad* þæs hālgan martires mihta.

(iii) Gif ðæt ðonne God ællmihtig geƿod habbe, and mē þæt on lāne gelīð þæt mē *gesibbra* arƿeard forðcymēð *wēpnedhādes* and æcarned weorðeð. ðanne ann ic ða m ofer mīnne dæg alles mīnes arfes tō brūcenne swā him leofust sio.

Or,

Dryhten, ðū *rīesas* in ecnisse, and in weoruld, and nū gēt. For ðon inn cōde *forud Fārānes* mid *foðurtēmum* and ūp-stigendum in sƿ. and gelādde ofer hīe Dryhten weter sār, hearn sōðlice [Israhēl] cōdon ðorh drēgo ðorh midne sār.

(iv) Suā ðū meahst ālene undēaw on ðæm meun *ærcsð* be sunum tēnum ongiotan, *hwæs* ðū wēnan scealt, ā r hō hit mid wordum oððe mid weorcum cƿðē. Sieððan hē hit ðonne mid ðāra *awētrum* cƿð. ðonne bið sio duru ðære unryhtwisnesse ontƿned ðæt ðū meahst gesēon eall ðæt yfel openlice ðæt ðærinne lūtað.

(v) Beæton ðeah þæt gewoore ūtan sūme twēgen dagas, and genāmon cēapes eall þæt þā r būton wæs, and þā menn ofslōgon þe hīe forridan mēhton hūtan geweoce, and þæt corn eall forbærndon, and mid hira horsum *fretton* on wlcro *cƿenheðe*.

(vi) Æghwile *gylt* be hys gebyrdum. Sē byrdesta sceall gyldan fiftƿne mearðes fell, and fif *hrānes*, and ān beren fell, and tƿn ambra feðra, and berenne kyrtel oððo *yterenne*, and twogen sciprāpas; āgƿer sƿ syxtig ēla lang, oƿer sƿ of hwæles hƿde geworht, oðer of siodes.

2. Comment on the spellings *kynge*, *Wulfwi*, *þeignes*, *healre* in extract (i) in Question 1. Give a short account of Old English orthography in relation to Old English phonetics.

6

3. Write an essay on King Alfred as a translator, or discuss the history and importance of the Old English Chronicle. 6

4. Give some account of the dialect of either of the extracts in Question I (iii). 6

5. Annotate *nine* of the words and phrases in italics in the above extracts, or write *full* notes (etymological or otherwise) on *six* of the following words: *mæsse*, *neawist*, *īgland*, *gļeodqe*, *Sigelhearwa*, *for- tēnde*, *hērehȝp*, *rāran*, *gesegen*, *pißsera*, *heorot*, *crismleasung*. 6

6. Decline *hælep*, *būend*, *gōd man*, *sco bōc*, or give the principal parts of *four* of the following verbs: *sēon*, *hōn*, *īewan*, *unnan*, *biddan*, *snīðan*, *sgltan*. 6

7. Translate :—

20

Pope Gregory and the English Slave-boys in Rome.

Ða gelamp hit at sumum sæle · swa swa hyt for oft deð · þæt Engliscce cypnen brohton heora ware to Romana byrig. 7 Greogorius eode be þære stræt to ðam Englisum mannun heora þing sceawigende ;. Ða geseah he betwuxt þam warum cypeenhtas gesette · þa wæron hwites lichaman 7 fægres andwlitan men · 7 wæðelice gefe- axode ;. Gregorius þa beheold þara cnapena wlite 7 befran of hwilene ðeode hi gebrohte wæron · þa sæde him man ꝥ hi of Engalande wæron · 7 ꝥ þara peode mennisc swa wlitig wære ;. Eft ða Gregorius befran hwæðer þæs landes fole Cristen wære ꝥe hæðene : him man sæde ꝥ hi hæðene wæron. Gregorius þa of ineweardre heortan langsumne sicce- tunges teah 7 cwæð. Wia la wa · ꝥ swa fægres hiwes men syndon þam sweartan 7 deofle under ðeodde ;. Eft þa Gregorius befran hu þære peode nama wære ꝥe hi of cumon · him wæs geandwyrd þæt hi Angle genemnde weron ;. Ða cwæð he rihtelice hi syndon Angle gehatene · forðan ꝥe hi Engla wlihte habbað. 7 swilcum gedafenað þæt hi on heofonum Engl geferon heon ;. Gyt þa Gregorius befran hu þære scyre nama wære ꝥe þa cnapan of aladde wæron · him man sæde ꝥ ꝥe seirmen wæron Deiri gehatene · Gregorius andwyrd · Wia hi syndon Deiri gehatene · forðan ꝥe hi synd fram gramnan generode 7 to Cristes mildheortnesse gecygede ;. Gyt þa he befran hu is þære scyre cyning gehaten · him wes ge andswarod ꝥ se cyning .Elle gehaten wære ;. Hwæt la Gregorius gumenode mid his wordum to ðam naman 7 cwæð · hit gedafenað ꝥ alleluia sy gesungen on þam lande to lofe þæs .Elmhtigan sceyppendes ;. (*Elfric*).

SECOND HALF.

Examiner.—R. C. GOFFIN, ESQ., M.A.

POETRY.

8. Render into modern English, with commentary, *one* of the 15 following passages :—

- (a) Næs ðā dēad þā gýt,
 ealles orsāwle : slōh ðā eornoste
 ides ellenrōf ðpre sīðe
 pone hāðenan hund, þæt him þæt hēafod wand
 forð on ðā flōre ; leg so fūla lōap
 gēsne beaftan, gāst ellor hwearf
 under nōowelne næss and ðær genyðerad wæs.
 sūsle gesā led syððan a-fre,
 wyrnum bewunden, wītum gebunden,
 hearde gehæfted in hellebryne
 after hinsīðe. Nō ðearf hē hopian nō,

prȳstrum forðylmed þæt hē ʒonan mōte
 of ðām wyrmsēle, ac ða'r wunian se al
 āwa tō aldre butan ende forð
 in ðām heolstran hām hyhtwynna lēas.

- (b) Ic wiht geseah wundorlice
 hornum bitwēonum hūpe lā dan,
 lyftfæt leohtlic listum gegierwed.
 hūpe to pām hām of pām heresipe:
 walde hyre on pære byrig būr ātlimbran.
 searwum āsettian, gif hit swā meahle.
 Ðā cwōm wundorlicu wiht ofer wealles hrōf.
 sēo is eallum cūð eorðbūendum:
 āhrēdde pā pā hūpe and tō hām bodrāf
 wrēccan oferwillan, gewāt hyre west þonan
 fāhpum fēran, forð onette.
 Dust stene to heofonum, dēaw fēoll on eorþan,
 niht forð gewāt: nā nig sippian
 wera gewiste pā re wihte sið.

9. Annotate, pointing out metrical peculiarities, any two of the following:— 5

- (a) Bifode ic pā mē se beorn ymbelypte.
 (b) Is þes ænge styde ungelic swiðe
 pām āðrum þe wē ā'r cūðon.
 (c) Eālā pēodnes prym! hū sēo præg gewāt,
 genāp under nihthelm, swā hēo nō ware.
 (d) wȳseton [wiston] and ne wēndon þæt hīe heora winedrihten
 selfne gesāwon.

10. *Either,*

Point out the interest and difficulties of *The Seafarer*. 5

Or,

Discuss the literary and historical value of the poem on the battle of Maldon.

11. *Either,*

Compare Old English alliterative metre with modern English blank verse. 5

Or,

Write a note on the Old English poetical vocabulary.

12. Render into modern English:— 20

(From the Cadmonian *Genesis*)

Ad stōd on āled hæfde Abrahame
 metod moncynnes. māge Lōthes,
 brēost geblissad, pā hē him his bearn forgeat
 Isāac ewicne. Ðā se eadege bewlāt
 rine ofer oxle ond him þa'r rom geseah
 unfeor þanon āne standan,
 brōðor Arones, brēmbrum fæstne.
 Þone Abraham genam ond hine on ād āhōf
 ofestum miclum for his āgen bearn:
 ābregd pā mid pȳ bille. brynegield onhrēad,
 recendne weg, rommes blōde,
 onblēot þæt lāc gode, sargele lēana þane
 ond ealra pāra sālða, pō hē him sið ond ār,
 gifena drihten, forgifen hæfde.

ENGLISH.

GROUP B.

SIXTH PAPER.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—P. C. GHOSH, Esq., M.A.

1. Translate into modern English *three* passages as indicated below, assign them to the context and write notes, explanatory, grammatical and metrical, where necessary :—

A. ONE PASSAGE.

- (i) Hwan Grim him hauede fasto bounden,
 And sithen in an old cloth wounden,
 A kenel of clutes, ful unvraste,
 That he no mouete speke no fnaste,
 Hwere he wolde him here or lede :
 Hwan he hauede don that dede
 Hwan the swike him hauede hethede,
 That he shulde him forth lede,
 And him drincken in the se,
 That forwarde makeden he
 In a poke, ful and blac.
 Sone he caste him on his bac.

(ii) *pis is la pes canges blisse, & to ueond bihalt al pis gemon, and lauhweð pet he to-bersted. Wel understound euerich wis mon & wummon pis; pet gold and seoluer boðe, & euerich eorðlich eihte, nis buten eorðe & asken, pet ablent euerichne mon pet bloawoð in ham : pet is, pet boluweð him ine ham : puruh ham ine heorte prude : & al pet he rukeleð & gedereð togedere, and ethalt of eni þinge pet nis buten asken, more þen hit beo need, al schal ine helle iwurðen to him tadden & neddren, & doðe, ase I saie seið, schulen beon of wurmes his kurtel & his kuuer tur, pet nolde her þe neofule ueden ne schruden.*

B. ONE PASSAGE.

- (i) þer prechede a pardoner · as he a prest were,
 And brouȝt vp a Bulle · with Bisschopes seles,
 And seiȝe þat him-self mihte · a-soylen hem alle
 Of Falsnesse of Fastinge · and of vouwes Ibrokon.
 Þe lewede Men likede him wel · and-leeneþ his speche,
 And comen vp knelynge · and cusseden his Bulle;
 He honchede hem with his Breuet · & blered heore eiȝen,
 And rauhte with his Ragemon · Ringes and Broches.
- (ii) *pis world mo wurcheþ wo,
 Rooles ase þe roo,
 Y sike for vn-sote;
 Ant mourne ase men doþ mo.*

For doute of foule fo,
 Hou y my sunne may bete.
 Pis mon þat Matheu ȝef
 A peny þat wes so bref,
 Þis frely folk vnfete;
 ȝet ho ȝyrnden more,
 Ant saide he come wel ȝore,
 Ant gonne is loue for-lete.

C. ONE PASSAGE.

- (i) 'I trowe þat some wikked wyȝt · wrouȝte pis orders
 þoruȝ þat gleyim of þat gest · þat Goliath is ycalde.
 Oþer elles satan him-self · sente hem fro hell
 To cumbren men wiþ her craft · cristendome to schenden :'
 Derē broþer,' quath peres · ' þe devell is ful queynte :
 To encombren holy Chirche · he casteþ ful harde.
 & flurichop his falsnes · opon fele wise,
 And for he casteþ to-forn · þe folke to destroye.
 Of þe kynrede of Caym · he caste þe freres,
 And founded hem on farysens · feyned for gode.'
- (ii) The twynklyng stremowris of the orient
 Sched purpoure sprangis with gold & asure ment.
 Þersaud the sabill barnukyn nocturnall,
 Bet down the skyis clowdy mantill wall:
 Eous the stoid, with ruby harnys red,
 Abuf the sey lyftis furth hys bed,
 Of coulour soyr, and sumdeill brown as berry.
 Forts alichtyn and glaid our Emyspery,
 The flambe owtrastynge at his noyss-tyrlyys:
 So fast photon with the quhyp hym quhyrlyys,
 To roll Appollo.hys faderis goldyn char.
 That schrowdith all the hevynys & the ayr.

Answer two questions, one from each group:—

A.

16

- (i) *The Vision of William Concerning Piers the Plowman*; (a) its Plan, (b) its Textual Problem, (c) its Authorship.
 (ii) The Influence of the Classical Renaissance on English Prose of the Sixteenth Century.
 (iii) The Troy Legend in Middle English Literature.

B.

14

- (i) The substance of the 'Tale of the Coffers' as told by Gower.
 The context in which he introduces it. A literary history of the tale, with a special note on the earliest work in a European language in which it occurs.
 (ii) The substance of Sackville's description of Misery, Old Age, War.—Criticism of Warton's statement regarding the entire passage that "Spenser caught his manner of designing allegorical personages from this model," with a brief notice of the writers who may be presumed to have supplied Sackville with hints regarding his Descent into Hell.

SECOND HALF.

Examiner—T. S. STERLING, ESQ., M.A.

UNSEENS.

Translate into modern English, adding metrical, etymological and grammatical notes:—

- (1) þis deuel is mikel wið wil and magt,
 Sô wicchis hāven in here craft;
 Hē dōð men hungren and hāven ðrist,
 And manī ōðer sinful list.
 Tolleð men tō him wið his ōnde.
 Wōsō him folegeð hē fīndeð sōnde.
- (2) þet I spōke o þis ilke trē
 Bytākens, man, bōth mē and pē;
 þis fruit bitākens alle ōūre dēdis.
 Bōth gōde and ille quā rightly rēdis.
 Ūr dēdis frō ūr hert tās rōte.
 Queder þai bō worthī hāle or hōte.
 For be þē þyng man drawes till
 Men schal him knaw for gōd or ill.
- (3) Arðūr wes forwūnded wunder āne swīðe.
 þēr tō him cōm ā cuave þē wes of his cūinne;
 Hē wes Cadōres sune, þe ēorles of Cornwaile;
 Constantīn helhte þē enāve, hē wes þān kīnge dēore.
 Arðūr him lōkede on þēr hē lai on fōlden.
 And þās wōrd seide mid sorhfulle heorte:
 Constantīn þū art wileume, þū wēore Cadōres sone;
 Ich þē bitache hēre mīne kīnerīche."
- (4) Full oft time it falleth so
 My ear with a good hittance
 Is fed, with reading of romance
 Of Isodyne and Amadas,
 That whilom were in my case:
 And eke of other many a score.
 That loved long ere I was bore:
 For when I of their loves read,
 Mine ear with the tale I feed;
 And with the lust of their histoire
 Sometime I draw into memoire,
 How sorrow may not ever last,
 And so hope cometh in at last.

ENGLISH.

GROUP B.

SEVENTH PAPER.

Examiner—SUNITIKUMAR CHATTERJEE, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The questions carry equal marks.

Answer TWO questions from EACH group.

GROUP A.

1. What are the chief peculiarities in accordance of Chaucerian English ?
2. Attempt a short sketch of the development of English vowel sounds from the earliest stages down to modern times.
3. Trace the history of the demonstrative pronouns from Old English to Modern English.

GROUP B.

4. Discuss the peculiarities of the following expressions :—
 - (a) He were better his deeth to take.
 - (b) Wo was this kyng.
 - (c) Forsothe it am nat I.
 - (d) There is at Bath certain waters.
 - (e) Cut me off the heads of all the favurites.
 - (f) There is a devil haunts thee.
5. Distinguish between the Simple and the Gerundial Infinitive and enumerate their functions at various stages of the English language.
6. How far has English syntax been influenced by Latin ?

GROUP C.

7. Explain and illustrate vowel-gradation.
8. Give the history of the following suffixes :—
Mod. E. -ledge, Mid. E. -hed, OE. -ing, Teut. -m-an, and Aryan -tro.
9. Classify and illustrate the foreign element in the English language.

GROUP D.

10. What are the criteria of kinship among languages ? Apply them to the Teutonic group.
11. What arguments can be adduced for assuming the reality of the Indo-Germanic parent-speech ?
12. Distinguish between Indo-Germanic flexion and Semitic flexion.

ENGLISH.

GROUP B.

EIGHTH PAPER.

Examiner—F. W. SUMMERSON, Esq., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

Write an essay on one of the following subjects :—

- (1) The humour of Chaucer.
- (2) The study of Anglo-Saxon as an essential foundation to a mastery of the English Language and its literature.
- (3) The influence of the coming of the Normans upon the English language and its literature.
- (4) "As the thoughts and the reasonings of an author have a personal character, so also is his style not only the image of his subject but of his mind."

LATIN

FIRST PAPER.

Examiner—DR. H. STEPHEN, M.A., D.D.

*Candidates are required to give their answers in their own words,
as far as practicable.*

The figures in the margin indicate full marks.

1.

PLAUTUS.

Capituli.

- (a) Ubi res prolatae sunt, quom rus homines eunt,
Simul prolatae res sunt nostris dentibus.
Quasi quom caletur, cochleae in obculto latent,
Suo sibi succo vivunt, ros si non cadit:
Item parasiti rebus prolatis latent,
In obculto, miseri victitant succo suo.
Dum ruri rurant homines, quos liguriunt.

Translate. Who is the speaker here. Describe briefly the part played by him in the comedy.

- (b) Nunc illud est, quom me fuisse quam esse, nimio mavelim;
Nunc spes opes auxiliaque a me segregant spernuntque se.
Hic ille est dies quom nulla vitae meae salus sperabili est,
Neque exitium exitio est, neque adeo spes, quae hunc mi
abspellat metum
Nec sycophantiis nec lucis ullum mantellum obviam est.

Translate. Who is the speaker here? Sketch his story briefly.

Rudens.(c) *Mulierculas*

Video sedenteis in scapha solas duas.
 Ut adflectantur miserae ! euge, euge, perbene,
 Ab saxo avortit fluctus ad litus scapham,
 Salvæ sunt si illos fluctus devitaverint.
 Nunc, nunc periculum'st ; eiecit alteram,
 At in vado'st : jam facile enabit ; eugepae !

Translate, and explain the occasion.

- (d) Nunc sic faciam, sic consilium'st, ad herum ut veniam docte
 atque astute.
 Pauxillatim pollicitabor pro capite argentum ut sim liber.
 Jam ubi liber ero, igitur demum instruam agrum, aedeis,
 mancipia.

Translate, and state the speaker and occasion. Can any objection be made against the dramatic unity of the *Rudens*.

2.

TERENCE.

Adelphi.

- (a) Abs quivis homine, quom est opus, beneficium accipere
 gaudeas ;
 Verum enim vero id demum juvat, si quem aequom'st facere,
 is bene facit.
 Frater, frater, quid ego nunc te laudem ? satis certo scio,
 Nunquam ita magnifice quidquam dicam, id virtus quin
 superet tua.

Translate, and name the speaker.

- (b) Id esse verum, ex me atque ex fratre cuivis facile'st noscere.
 Ille suam egit semper vitam in otio, in conviviis.
 Clemens, placidus, nulli laedere os adridere omnibus,
 Sibi vixit, sibi sumptum fecit ; omnes benedicunt, amant.

Translate, and sketch the character of Demea. What does Plautus tell us in the Prologue about the origin of this play ?

Phormio.

- (c) O Phaedria, incredibile est quantum herum ante eo sapientia.
 Meditata mihi sunt omnia mia incommoda, herus si redierit ;
 Molendum usque in pistrino, vapulandum ; habendae com-
 pedes.
 Opus ruri faciendum, horum nihil quidquam accidet animo
 novum.

Translate and name the speaker.

- (d) Laetus sum, ut moae res sese habent, fratri obtigisse quod
 volt,
 Quam scitum'st ejus modi parare in animo cupiditates,
 Quas, quom res adversae sient, paulo mederi possis.

Translate. Who is the speaker here, and who is the person referred to ?

3.

LUCRETIVS.

17

- (a) Quae cum magna modis multis miranda videtur
Gentibus humanis regio visendaque fertur,
Rebus opima bonis, multa munita virum vi.
Nil tamen hoc habuisse viro praeclariuss in se
Nec sanctum magis et mirum carumque videtur.

Translate. What is the country, and who is the person here referred to ?

- (b) Praeterea cui non animus formidine divum
Contrahitur, cui non correpunt membra pavore,
Fulminis horribili cum plaga torrida tellus
Contremit et magnum percurrunt murmura caelum ?

Translate. What theory is Lucretius trying to establish in the passage from which this is taken ?

- (c) Explain any *two* of the following in connection with their context :—
- (1) Ergo vivida vis animi pervicit, et extra
Processit longe flammantia moenia mundi.
 - (2) Avia Pieridum peragro loca nullius omte
Trita solo. juvat integros accedere fontes.
 - (3) Per caelum volvi quia nox et luna videtur.
Luna, dies et nox, et noctis signa severa.

4.

VIRGIL.

17

Translate, and state the place in Virgil's works, and the context or connection, of any *three* of the following :—

- (a) Rura mihi et rigui placeant in vallibus amnes :
... O qui me golidis in vallibus Haemi
Sistat, et ingenti ramorum protegat umbra !
- (b) Felix qui potuit rerum cognoscere causas
Atque metus omnes et inexorabile fatum
Subjecit pedibus, strepitumque Acherontis avari.
- (c) Ille ego qui quondam gracili modulatus avena
Carmen, et egressus silvis, vicina coegi
Ut quamvis avido parerent arva colono,
Gratum opus agricolis : at nunc horrentia Martis.
Arma virumque cano.
- (d) Tu regere imperio popules, Romane, memento ;
Hae tibi erunt artes, pacisque imponere morem
Parcere subjectis et debellare superbos.

Either,

(a) Quote or mention passages in which Virgil seems to express a desire to emulate Lucretius.

Or,

(b) Indicate the principal points of difference between the versification of Lucretius and that of Virgil.

5.

HORACE.

13

Translate, and give the places and the context or connection of any *two* of the following :—

- (a) Exegi monumentum aere perennius
Regalique situ pyramidum altius
Quod non imber edax, non Aquilo impotens
Passit diruere, aut innumerabilis
Annorum series et fuga temporum.
- (b) Dimidium facti, qui coepit habet; sapere aude:
Incipe, Vivendi recte qui prorogat horam,
Rusticus expectat dum defluat amnis, at ille
Labitur et labetur in omne volubilis aevum.
- (c) Ut pictura poësis; erit quae si propius stes,
Te capiat magis; et quaedam si longius abstes;
Haec amat obscurum; volet haec sub luce videri;
Judicis argutum quae non formidat acumen.

6.

JUVENAL.

15

- (a) Jam deficientibus Austris
Spes vitae cum solo redit; tum gratus Julo,
Atque novercali sedes praelata Lavinio,
Conspicitur sublimis apex, cui candida nomen
Seroa dedit, laetis Phrygibus miserabile sumen.
Et nunquam visis triginta clara mamillis.

Translate, and explain by references to Virgil.

- (b) Give the sense and context of any *two* of the following :—
- (1) Tenet insanabile multos
Scribendi cacoethes, et aegro in corde senescit.
- (2) Postquam ad Cimbros stragemque volabant
Qui nunquam attigerant majora cadavera corvi.
Nobilis ornatur lauro collega secunda.
- (3) Unus Pellaeo juveni non sufficit orbis:
Aestuat infelix angusto limite mundi.

Mention the principal imitations of Juvenal in English literature.

LATIN.

SECOND PAPER.

Examiner—REV. FATHER F. X. CROHAN, S.J.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. (a) Translate :—

Nisi ante Roma profectus esses, nunc eam corte relinqueres. Quis enim tot interregnis iure consultum desiderat? Ego omnibus, unde petitur, hoc consilii dederim, ut a singulis interregibus binas advocaciones postulent. Satisne tibi videor abs te ius civile didicisse? Sed

heus tu, quid agis? ecquid fit? Video enim te iam iocari per litteras. Hæc *signa* meliora sunt quam in meo Tusculano. Sed quid sit scire cupio. *Consuli quidem te a Caesare scribis, sed ego tibi ab illo consuli mallem.* Quod si aut fit aut futurum putas, perfer istam militiam et permane: ego enim desiderium tui spe tuorum commodorum consolabor: sin autem ista sunt inaniora, recipe te ad nos.

(b) Write notes on the *italicised* portions of the above extract. 5

(c) Turn the passage into Oratio obliqua. 6

2. Give examples from Cicero's letters of his bold use of ellipse. 6
Remark on other noted peculiarities in their regard.

3 (a) Translate:— 5

Quid me igitur mones? Ut si quis medicus aegrotò imperet ut sumat

"Terrigenam, herbigradam, domiportam, sanguine cassam," potius quam hominum more cochleam dicere. Nam Pacuvianus Amphio,

"Quadrupes tardigrada, agrestis, humilis, aspera,
Capite brevi, cervice anguina, aspectu truci,
Eviscerata, inanima, cum animali sono,"

quum dixisset obscurius, tum Attici respondent: Non intelligimus, nisi aperte dixeris. At ille uno verbo Testudo.—Non potueras hoc igitur a principio, citharista dicere?

(b) Refer the passage to its context, and remark on the aptness of the illustration. 3

4. (a) Reproduce from Cicero the argument of the Stoics in favour of divination. 5

(b) To what does Cicero attribute the different characteristics of this practice? 4

5. (a) Translate, adding explanatory notes:— 10

In hac causa iudices, tametsi utrumque esse arbitror perspicuum, tamen de utroque dicam, et de eo prius, quod apud vos plurimum debet valere, hoc est, de voluntate eorum, quibus iniuriæ factæ sunt: quorum causa iudicium de pecuniis repetundis est constitutum. Siciliam provinciam C. Verres per triennium depopulatus esse, Siculorum civitates vastasse, domos exinanisse fana spoliasset dicitur. Adsunt queruntur Siculi universi; ad meam fidem quam habent spectatam iam et diu cognitam, confugiunt; auxilium sibi per me a vobis atque a populi Romani legibus petunt; me defensorem calamitatum suarum, me ultorem iniuriarum, me cognitorem iuris sui, me actorem causæ totius voluerunt.

(b) Explain the words advocatus, procurator, cognitor, actor causæ as used by Cicero. 4

(c) What circumstances provoked the speech against Q. Cecilius? Why is it called 'Divinatio'? 6

6. (a) Translate, noticing allusions:— 10

Romæ interim satis iam omnibus ad tuendam arcem compositis, turba seniorum, domos regressa, adventum hostium, obstinato ad mortem animo, expectabat. Qui eorum curules gesserant magistratus, insignibus fortunæ præstinæ vestiti medio aedium eburneis sellis sedere. Sunt qui M. Fabio pontifice maximo præfante carmen tradant eos se devovisse pro patria Quiritibusque Romanis. Galli quia interposita nocte a contentione pugnae remiserant animos, sine ira, sine ardore animorum ingressi postero die urbem, patente Collina porta in forum perveniunt.

(b) Write a note on Livy's style, and discuss the value of his 'History.' 8

7. (a) Translate :—

5

Ni mihi destinatum foret suum quaeque in annum referre, auebat animus antire statimque memorare exitus, quos Latinius atque Opusius ceterique flagitii eius repertoires habuere, non modo postquam Gaius Caesar rerum potitus est, sed incolumi Tiberio, qui scelerum ministros ut perverti ab aliis nolebat, ita plerumque satiatus et oblati in eandem operam recentibus veteres et prae graves adfixit : verum has atque alias sontium poenas in tempore trademus. Tum censuit Asinius Gallus, cuius liberorum Agrippina matertera erat, petendum a principe ut metus suos senatui fateretur amoverique sineret.

(b) Notice any peculiarities of style illustrated in the above extract. 4

8. (a) Give the substance of the account given by Tacitus of the origin and early history of the Jewish nation. 8

(b) How far is the character of Tacitus reflected in his works ? 6

LATIN.

THIRD PAPER.

Examiner—DR. H. STEPHEN. M.A., D.D.

Candidates are required to give their answers in their own words as far as practicable.

Translate into English any two of the following poetical passages, and any two of the following prose passages :—

(a) *Lucretius glorifies Epicurus* :—

Tu, pater, es rerum inventor ; tu patria nobis
Suppeditas praecepta ; tuis ex, inclute, charteis.
Floriferis ut apes in saltibus omnia libant,
Omnia nos itidem depascimur aurea dicta,
Aurea perpetuâ semper dignissima vitâ.
Nam simul ac ratio tua caepit vociferari
Naturam rerum, divina mente coortam,
Diffugiunt animi terrores ; moenia mundi
Discedunt ; totum video per inane geri res.
Apparet divum numen sedesque quietae ;
Quas neque concutiunt venti, nec nubila nombeis
Aspergunt, neque nix acri concreta pruina
Cana cadens violat ; semper sine nubibus aether,
Iuteget, et large diffuso lumine ridet.
At contra nusquam apparent Acherusia templa ;
Nec tellus obstat quin omnia despiciantur,
Sub pedibus quaequomque infra per inane geruntur.
Heis ibi me rebus quaedam divina voluptas
Percipit atque horror ; quod sic Natura, tuâ vi
Tam manifesta patens, ex omni parte relecta est.

(b) *Cotta refutes Epicurus* :—

Quid enim mereas ut Epicureus esse desinas ? “ Nihil equidem ” inquis, “ ut rationem vitae beatae veritatemque deseram.” Ista igitur est veritas?

Nam de vitâ beatâ nihil repugno, quam tu ne in Deo quidem esse censes, nisi plane otio langueat. Sed ubi est veritas? In mundis, credo, innumerabilibus, aliis nascentibus, aliis cadentibus; an in individuâ corpusculis, tam praeclara opera, nullâ moderante naturâ, nullâ ratione, fingentibus? Concedam ex individuâ constare omnia. Quid ad rem? Deorum enim natura quaeritur. Sint sane ex atomis: non igitur aeterni. Quod enim ex atomis fit, id natum aliquando sit. Si natum, nulli Dii antequam nati, et, si ortus est Deorum, interitus sit necesse est. Ubi igitur illud vestrum *beatum* et *aeternum*, quibus duobus verbis significatis Deum? Ita enim dicebas, non corpus esse iu Deo, sed quasi corpus; non sanguinem, sed quasi sanguinem.

(c) *Aristotle on primitive religion*:—

Praeclare ergo Aristoteles, Si essent, inquit, qui sub terra semper habitavissent, bonis et illustribus domiciliis, quae essent ornata signis atque picturis, instructaque rebus iis omnibus, quibus abundant ii qui beati putantur, nec tamen exissent unquam supra terram; acceperissent autem fama et auditione esse quoddam numen, et vim Deorum; deinde aliquo tempore, patefactis terrae faucibus, ex illis abditiis sedibus evadere in haec loca quae nos incolimus, atque exire potuissent; cum repente terram et maria caelumque vidissent, nubium magnitudinem, ventorumque vim cognovissent, aspexissentque solem, ejusque tum magnitudinem, tum etiam efficientiam cognovissent; cum autem nox opacasset, tum caelum totum cernerent astris distinctum et ornatum, lunaeque luminum varietatem tum crescentis, tum senescentis—haec cum viderent, profecto et esse Deos, et haec tanta opera Deorum esse arbitrarentur.

(d) *Seneca predicts the discovery of America*:—*Sea-voyages began with the winning of the golden fleece but they will end with the discovery of a new world*:—

Quod fuit hujus.
 Pretium cursûs? Aurea pellis:
 Majusque mari Medoa malum,
 Merces primâ digna carinâ.
 Nunc jam cessit pontus: et omnes
 Patitur leges: non Palladiâ
 Compacta manu, regum referens
 Inclita remos, quaeritur Argo.
 Quaelibet altum cymba pererrat;
 Terminus omnis motus; et urbes
 Muros terrâ posuere novâ,
 Nil, quâ fuerat sede, reliquit
 Pervius orbis,
 Indus gelidum potat Araxem:
 Albim Persae, Rhenumque bibunt.
 Venient annis secula soris,
 Quibus Oceanus vincula rerum
 Laxet, et ingens pateat tellus,
 Tethysque novos delegat orbes,
 Nec sit torris ultima Thulo.

(e) *How Romulus died and how his spirit appeared to Proculus*:—

Est locus, antiqui Capream dixere paludem:
 Forte tuis illic, Romule, jura dabas.
 Sol fugit, et remonent subeuntia nubila caelum:
 Et gravis effusis decedit imber aquis.
 Hinc tonat, hinc missis abruptitur ignibus aether
 Fit fuga, rex patriis astra petebat oquis

Sed Proculus Longâ veniebat Julius Albâ ;
 Lunaque fulgebat, nec facis usus erat.
 Cum subito motu nubes crepuere sinistrae,
 Retulit ille gradus : horrueruntque comae.
 Pulcher et humano major, trabeâque decorus
 Romulus in mediâ visus adesse viâ ;
 Et dixisse simul, Prohibe lugere Quirites ;
 Nec violent lacrimiss numina nostra tuis,
 Thura ferant, placentque novum pia turba Quirinum,
 Et patrias artes militiamque colant.
 Jussit, et in tenues oculis evanuit auras.
 Convocat hic populos, jussaque verba refert.
 Templâ Deo fiunt : collis quoque dictus ab illo ;
 Et referunt certi sacra paterna dies.

(f) *The death of Camilla :—*

Illa manu moriens telum trahit, ossa sed inter
 Ferreus ad costas alto stat vulnere mucro,
 Labitur exsanguis ; labuntur frigida leto
 Lumina : purpureus quondam color ora reliquit.
 Tum sic expirans Accam, ex equalibus unam,
 Alloquitur ; fida ante alias quae sola Camillae
 Quicum partiri curas ; atque haec ita fatur :
 " Hactenus, Acca soror, potui, nunc vulnus acerbum
 Conficit et tenebris nigrescunt omnia circum.
 Effuge et haec Turno mandata novissima perfer :
 Succedat pugnae, Trojanos arceat urbe.
 Jamque vale." • Simul his dictis linquebant habenas
 Ad terram non sponte fluens. Tum frigida toto
 Paullatim exsolvit se corpore, lentaque colla
 Et captum leto posuit caput, arma relinquens ;
 Vitaque cum gemitu fugit indignata sub umbras.
 Tum vero immensus surgens ferit aurea clamor
 Sidera dejectâ crudescit pugna Camillâ :
 Incurrunt densi simul omnis copia Tenerûm,
 Tyrrenique duces, Evandrique Arcades alae.

(g) *Pliny to Tacitus : Is brevity a good thing in Oratory ?*

Frequens mihi disputatio est cum quodam docto homine et peritocui nihil aequè in causis agendis ut brevisitas placet. Quam ego custodiendam esse confiteor, si causa permittat : alioqui praevaricatio est transire dicenda, praevaricatio etiam cursim et breviter attingere quae sint inculcanda, infigenda, repetenda. Nam plerisque longiore tractatu vis quaedam et pondus accedit, utque corpori ferrum, sic oratio animo non ictu magis quam mora imprimitur. Hic ille mecum auctoritatibus agit ac mihi ex Graecis orationes Lysiae ostentat, ex nostris Gracchorum Catonisque, quorum sane plurimae sunt circumcisae et breves, Ego Lysiae Demosthenen et in primis M. Tullium oppono, cujus oratio optima fertur esse quae maxima. Et, hercule ut aliae bonae res, ita bonus liber melior est quisque quo major. Vides ut statuas, picturas, hominumque formas, nihil magis quam amplitudo commendat.

(h) *The death of Catiline :—*

Catilina postquam fusas copias seque cum paucis relictum videt, memor generis atque pristinae suae dignitatis, in confertissimos hostes incurrat, ibique pugnae confoditur. Sed confecto proelio tum vero cerneret, quanta audacia quantaque animi vis fuisset in exercitu Catilinae. Nam fere quem quisque vivus pugnando locum ceperat, eum, amissa

anima corpore tegebat. Pauci autem, quos medios cohors praetoria disjecerat, paulo divorsius sed omnes tamere adversis vulneribus, considerants, Catilina vero longe a suis inter hostium cadavera repertus est paululum etiam spirans, ferociamque animi, quam habuerat vivus, in vultu retinens. Pestremo ex omni copia neque in proelio neque in fuga quisquam civie ingenuus captus est; ita cuncti suae hostiumque vitae juxta pepercerant. Neque tamen exercitus populi Romani laetam aut incruentum victoriam adeptus erat. Nam stronuissimus quisque aut occiderat in proelio aut graviter vulneratus discesserat.

LATIN.

FOURTH PAPER.

PROSE COMPOSITION.

Examiner—REV. DR. G. HOWELLS, M.A., PH.D., B.LITT.,
B.D.

Translate into Latin two of the following passages :—

100

(1) The blemishes of Bacon's life are not mere human errors and weaknesses, but debased sentiments and political crimes. This I do not pretend to deny; much less would I defend delinquencies which are proved beyond the possibility of doubt. The unworthy sentiments are open to view; the crimes are acknowledged by Bacon himself; they have sullied his public name, and if they are designated in the hardest terms, I offer no objection: only to me these single traits are not all the indices of his character. As far as I see, the character would have been precisely the same if the unworthy sentiments had not been so obviously manifest: if the crimes had not been committed. I could well imagine that with greater prudence Bacon might have avoided either the crimes themselves, or the whole weight of responsibility attached to them: but in that case I should not think a whit the better of him, or a whit the worse. He would then have been a more cunning, but not a better man. Indeed a thorough-paced scoundrel, an accomplished plotter would never have fallen into such open guilt.

(2) One Cinna, however, a friend of Caesar, happened, as it is said, to have had a strange dream the night before; for he dreamed that he was invited by Caesar to sup with him, and, when he excused himself, he was dragged along by Caesar by the hand, against his will, and making resistance the while. Now when he heard that the body of Caesar was burning in the Forum, he got up and went there out of respect, though he was somewhat alarmed at his dream, and had a fever on him. One of the multitude who saw Cinna told his name to another who was inquiring of him, and he again told it to a third, and immediately it spread through the crowd that this man was one of those who had killed Caesar; and indeed, there was one of the conspirators who was named Cinna; and, taking this man for him, the people forthwith rushed upon him and tore him in pieces on the spot. It was principally through alarm at this that the partisans of Brutus and Cassius after a few days left the city.

(3) Of all monuments of antiquity none is more precious to those who love to follow a great and interesting mind into the recesses of its

thought, and to picture to themselves the private life of the heroes of old, than the letters of Cicero to Atticus. The public engagements of the patriot statesman are known to us from many sources; but in this volume more particularly we trace him to his domestic hearth, his mansion on the Palatine, his sea-beach at Antium, his suburban groves on the hill of Tusculum. There, with his beloved city spread in the plain beneath him, he revolved divine philosophy amidst the monuments of the ancients and the villas of his own generation. The combination of the actual with the visionary, of the business of life with ideas of eternity, which he enjoyed at Tusculum, suited the temper of Cicero far better than the abstract pursuit either of politics or philosophy. He depended too much on others' thoughts for a philosopher; but by uniting the one character with the other he effected a combination of the practical and the speculative, such as man has rarely equalled and never excelled.

LATIN.

FIFTH PAPER.

Examiner—HON. MR. W. C. WORDSWORTH, M.A.

Candidates are required to give their answers in their own words as far as practicable.

Answer SEVEN questions only.

All questions carry equal marks.

1. Indicate by a table the relation between the chief languages of the Indo-Germanic family, and discuss the relation between (a) Latin and the Italic dialects, (b) Latin and French. How is Etruscan classified?

2. Discuss the origin of the Latin alphabet. What attempts were made to add to the alphabet commonly used?

3. Illustrate the effect of analogy on (a) declension or conjugation, (b) gender.

Examine the theory that all analogy formations are restorations.

4. What is meant by Phonetic Decay? Give examples from Latin and English.

5. Write notes on the words: *histrion*, *Caecina*, *Beneventum*, *rufus*, *lacrima*, *lingua*, *breviter*, *Jovis*, *istarum*.

6. Annotate and translate the following inscriptions:—

(a) *iunone . re | matrona | pisaurese | dono dedrot |*

(b) *matre | matuta | dono . diidro | matrona | m. curia . | pola . livia | deda.*

(c) *m. fourio . c.f. tribunus*

militare . de . praidad . maurte . dedet.

(d) *cornelius . lucius . scipio . barbatus . gnaiuod . patre | prognatus . fortis . uir sapiensque-quoius . forma . uirtutei . parisuma | fuit-consol . censor . aidilis . quei . fuit . apud . uos-taurasia . cisauna | samnio . cepit-subigit . omne . loucanam . opsidesque . abdoucit . |*

7. Give instances in Latin of *k* softened into *g*, of the disappearance of *y*, of the disappearance of *v*, of the disappearance of *s* before a sonant consonant.

8. How do you explain the forms *honoris* from *honor*, *loca* from *locus*, *afficio* from *ad-facio*: also the forms *stipendium*, *nutrix*, *navis*, *optumus*, *pergo*, *soror*, *faxim*, *siet*.

9. Discuss the philological formation of the Passive in Latin. Does the language show any traces of a middle voice?

10. Discuss the derivation and meaning of *usurpare*, *nundinae*, *bideus*, *rebellis*, *inermis*, *comminus*, *anceps*, *ilicet*, *mandare*, *carnivorus*.

11. Discuss briefly the origin of the Latin cases, and give examples of survivals of cases obsolete in classical Latin.

12. What was the general rule of accent in Latin? Illustrate the influence of accent in determining Latin spelling.

LATIN.

SIXTH PAPER.

Examiner—HON. MR. W. C. WORDSWORTH, M.A.

Candidates are required to give their answers in their own words as far as practicable.

Answer questions 1 and 2 and any FIVE others.

All questions carry equal marks.

Illustrate by sketch maps where possible.

1. Draw a sketch map of the Roman Empire at its greatest extent, and indicate the dates at which each part was added. Indicate also the chief roads, giving their names.

2. What (a) qualities, (b) geographical circumstances, explain the success of the Romans as a military and imperial power?

3. Discuss briefly the organisation of the Romans at the end of the regal period.

4. Summarise briefly the steps by which Rome became the supreme power in the Italian peninsula.

5. Write a short life of two of the following: Hannibal, Jugurtha, Mithridates, Vercingetorix, Cleopatra, Civilis, Decabalus.

6. What is the place in Roman constitutional history of the Gracchi? Discuss Mommsen's statement that "on the very threshold of the *tyrannis* he (*i.e.* Caius) was confronted by the fatal dilemma, moral and political, that the same man had at one and the same time to maintain his ground, we may say, as a robber-chief and to lead the state as its first citizen—a dilemma to which Pericles, Caesar, and Napoleon had also to make dangerous sacrifices."

7. Who were the equites? What was their origin, and what part did they take in the party struggles of the last century of the Republic?

8. Write notes on six of the following:—*provocatio*, *tribunus militum*, *ager publicus*, *socii*, *comitia centuriata*, *lex flaminia*, *quaestiones perpetuae*, *spolia opima*, *civitates foederatae*, *commendatio*.

9. Give some account of the spread of the Christian faith in the Roman Empire, and discuss the attitude of the Government towards it. Explain its adoption as the official religion of the Empire.

10. What considerations brought about the division of the Empire into the two parts, Eastern and Western? Describe the organisation of these two parts, and summarise their subsequent history.

11. "Three times has Rome dictated the order of the world: three times has she bound the nations in unity together: the first time, when the Roman people were still in the fulness of their power, in the unity of the state: the second time, after they had fallen into decline, in the unity of the church; the third time, in consequence of the reception of the civil law in the middle ages, in the unity of rights—the first time by the force of arms, but the second and third times by the power of ideas. The world-historic significance and mission of Rome, expressed in a single word, is the triumph of the principle of universality over national diversity" (Von Ihering). Discuss this statement.

12. Give an account of the status of women in Roman Society. What changes, if any, did the Empire introduce?

LATIN.

SEVENTH PAPER.

HISTORY OF LITERATURE.

Examiner—REV. DR. G. HOWELLS, M.A., PH.D., B.LITT.,
• B.D.

Answer any five questions.

All questions carry equal marks.

Total marks—100.

1. Give an account of the origins of Latin Literature, and discuss the extent to which it is based on that of Greece.

2. Indicate the sources and extent of our knowledge of the life of Lucretius. What characteristics entitle him to be considered a great poet?

3. What is the place occupied by Catullus in the development of Latin Literature? Note his contributions to poetic thought and art.

4. Give a sketch of the life of Cicero as a man of letters; and expand the statement "Cicero stands in prose like Virgil in poetry, as the bridge between the ancient and modern world."

5. "Virgil is the true representative poet of Rome and Italy, of national glory and of the beauty of nature." Discuss this statement and illustrate from your reading.

6. Horace has been spoken of as both the realist and idealist of his age. Write from this standpoint a critical review of the career of Horace.

7. Consider the contributions of Roman authors to historical writing as a branch of prose literature.

8. Give an account of the life and writings of Seneca, showing his importance in the history of human thought.

LATIN.

EIGHTH PAPER.

Examiner—REV. FATHER F. X. CROHAN, S.J.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Write an Essay on one *only* of the following subjects:— 100
 (a) Tacitus as a writer, noticing in detail the force, brevity and poetical complexion of his style.
 (b) Roman Comedy as represented by the works of Terence and Plautus.
 (c) The influence of Latin on English Literature.
 (d) Juvenal, with special reference to his ethics and religion.

SANSKRIT.

FIRST PAPER.

Examiner—PANDIT BAHUBALLAV SASTRI.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

The answers to be written in Sanskrit.

1. द्वांसुपर्णा सयुजा सखाया समानं वृक्षां परिषस्वजाते । 15
 तयोरन्यः पिप्पलं स्वाद्वत्त्यनश्नन्नन्यो अभि चाकशीति ॥
 यद्वा गायत्रे अधि गायत्रमहितं त्रैष्टुभाद्वा त्रैष्टुभं निरतस्तत ।
 यद्वा जगज्जगत्याहितं पदं य इत्तद्विदुस्ते अमृतत्वमानसुः ॥
 ऋचो अक्षरे परमे व्योमन्यन्निन्देवा अधि विश्वे निषेवुः ।
 यस्तन्न वेद किमृचा करिष्यति य इत्तद्विदुस्त इमे समासते ॥
 इष्टेष्ट जाता सभवावशीतामरेपसातत्वानामभिः स्त्र्यैः ।
 जिष्णुर्वामन्यः सुमन्त्रस्य सूरिर्दिवो अन्यः सुभगः पुत्र ऊष्टे ॥
 एषां मन्त्राणां मध्येत्रायणां सायणानुसारेण व्याख्या कार्या ॥
2. अमृततन । जूर्वन् । मधुला । ककुद्वाः । देवत्रा । हिरण्यया । 8
 माहिनः । एषां मध्ये पंचानां कोऽर्थः कथं सिद्धिश्च सप्रमाणं लिख ॥

3. पृष्ठगभिपुत्र षड्वयोर्द्वितीयेऽहनि प्रउगेऽन्तरवृचवर्जमे- 15
तत्सूक्तम् । आभिपुत्रदिकेध्वजः सु प्रातःसवने मेवावरुणशस्त्रेऽयमेव
वृचः पंचदशदिक्षोर्मनिमित्तमाघापनीयः । मारुतनिविद्वानम् ।
अतिरात्रे द्वितीयपर्याये अर्च्छावाकशस्त्रे । अहर्गणेषु माध्यन्दिन-
सवनेषु तापमानरूपेषु अर्च्छावाकस्यहरहः शस्य संचकम् अभितष्टे
वेति सूक्तम् । रेखाङ्कितानां पदानां कोऽर्थः सप्रमाणं लिख ॥

4. विश्वेदुनुरोधना अथ पौंछं ददुरस्ते दधिरे कुत्तवे धनम् । 12
 षलस्तभ्रा विष्टिरः पंचसंदशः परिपरो अभवः सास्यकुथ्यः ॥
 ते जिष्ठया तपनी रक्षस्तपयेत्वानिदेदधिरे दृष्टवीर्यम् ।
 आविस्तत्कृष्व यदसत् उक्थं वृहस्यते विपरिरापो अर्श्य ॥
 अथ द्यावापृथिवी अतायतो भूतभवित्री वचसः सिंघासतः ।
 पयोरायुः प्रतरंते इदं पुर उपस्तुते वसूयुर्वी महोदधे ॥
 पुनः सभयद्विततं वयन्ती मथा कर्तो नधाच्छक्क धीरः ।
 उत्संहायास्याद्वयूँरदधरमतिषवितादेव अगात् ॥
 रषां त्रयाणाम् ऋषि-कृन्दो-देवता-विनियोगं च प्रदर्श्य
 भाष्यरीत्या व्याख्याकार्या ॥

SECOND HALF.

ऋग्वेदस्य उपोद्घाते प्रश्नाः ।

5. लिङ्गोपदेशश्च तदर्थवत् ॥ 3
 अथ जैमिनीयसूत्रस्य सायणोक्तमुदाहरणमवलम्ब्य विशदरूपेण
 व्याख्यानं लेख्यम् ॥
 6. सोऽरोदीद्यदरोदीत्तद्भद्रस्य रुद्रत्वम् । स आत्मनो वषासु- 12
 दक्खिदत् । देवा वै देवपजनमध्यवसाय दिशो न प्राजानन् ।
 यस्मादीदृशस्य वाक्स्य विवक्षितोऽर्थः कश्चिदपि नास्ति तस्मादिदं
 वाक्यमनित्यमुच्यते । यद्यप्यनादित्वात्स्वरूपेणानित्यत्वं नास्ति तथापि
 धर्मावबोधनलक्षणस्य नित्यकार्यस्याभावादनित्यैः काव्यालापैः समानत्वा-
 दप्रमाणमित्यर्थः ॥

अर्थार्थवाद्वाक्यत्रयस्य सायणोक्तमुत्तरपक्षमवलम्ब्य सत्यकृ-
 समाधानं लेख्यम् ॥

7. अन्यानर्थकात् ॥ एवं हि श्रूयते—पूर्णाहुत्या सर्वान् 15
 कामानवाप्नोति । पशुबन्धयाजौ सर्वाँल्लोकानभिजयति । तरति
 मृत्युं तरति पाप्मानं तरति ब्रह्महत्यां योऽश्वमेधेन यजते य उचैनमेवं
 वेद । तत्राग्न्याधेयगतया पूर्णाहुत्या सर्वकामप्राप्तिरन्यान्याग्निहोत्रादीन्यु-
 त्तरकालीनान्यनर्थकानि स्युः । तथा निरुद्धपशुबन्धानुष्ठानेन सर्वलोका-
 भिजयाज् ज्योतिष्टो मादौनामानर्थक्यम् । अध्ययनकालीनेनैवाश्वमेध-
 वेदनेन ब्रह्महत्यादितरणात् तदनुष्ठानं च व्यर्थं स्यात् । तस्मादासु-
 ष्मिकफलवाक्यानामप्यप्रामाण्यम् ॥

अत्र त्रिषूदाहरणेषु दर्शितस्यान्यानर्थक्यदोषस्य सिद्धान्तपक्षमव-
 लम्ब्य सम्यक्प्रसमाधानं लिखन्तु ॥

8. वेदस्य चत्वारोऽनुबन्धाः संक्षेपतः क्रमेण व्याख्येयाः । 8

9. वेदस्य श्रित्तादिषडङ्गानां वेदार्थावबोधे संक्षेपेण क्रमशः 12
 उपयोगः प्रदर्शयितव्यः ॥

SANSKRIT.

SECOND PAPER.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—PANDIT SARALNARAYAN SARMA.

1. अर्थग्रहणं किम् वृत्तावर्णान्तरोपसङ्क्रान्ते मा भूत् । कृति 10
 किम् तद्धिते मा भूत् कृतपूर्वकडम् । अनयोरेका पङ्क्तिर्व्याख्येया ।
2. अजायतष्टात्रिति सूत्रस्याजादिपदस्य पञ्चम्यन्तत्वस्वीकारे 10
 को दोषः ।

एहं ह्रस्वात्सम्बुद्धेरिति सूत्रेऽङ्गस्य कुत्र कथमन्वयः । अनयोः
 प्रश्नयोरेकस्योत्तरं देयम् ।

3. अदसोद्रेः पृथङ् मूलं केचिदिच्छन्ति लत्ववत् । केचिदश्व 5
 सदेशस्य नेत्येकोऽसिर्हि दृश्यते व्याख्यायतामियं कारिका ।
4. युव/सतिक्रान्त इति त्रिशब्दे कौदृशानि रूपाणि । 5
5. अपादान कारकविधायकानि कानिचिच्चत्वारि सूत्राणि 5
 सोदाहरणानि लेख्यानि ।

6. प्राचीनानां मते कति समासाः कानि च तेषां परिचायक- 5
चिह्नानि । सिद्धान्तकौमुदीकारसम्मतः कियन्तश्च समासाः । के
च ते । एतत् सर्वं स्पष्टीकरणीयम् ।
7. डमो ह्रस्वादचि डमुणित्यम्, अत्पूर्वस्य, पञ्चमी विभक्तेः 5
वन्ति आतुः । ह्रस्वश्च प्राणिपूर्वसेनाङ्गानाम्, सप्तमीविशेषण्ये
बहुव्रीहौ । एतेषां मध्ये चतुर्णां सूत्राणां सोदाहरणा अर्था लेख्याः ।
8. सञ्च्छ्रुः, वृत्रघ्नः, पञ्चगङ्गम्, निष्प्रवाणिः । नेयोमाणवकः 5
साम्नाम् । अत्रत्यानां चतुर्णां प्रयोगाणां साधुत्वं सङ्क्षेपतो विधेयम् ।

SECOND HALF.

Examiner—PANDIT BAHUBALLAV SASTRI.

The answers to be written in Sanskrit.

1. सन्वस्रधुनि चङ् परेऽनग्लोपे । कृ स भ व स्तु द्रु सुश्रुवो 10
लिति । दयतेर्दिगिलिति । लङ्ः शाकटाग्रनस्यैव । अङ्गैः सिचि ।
उपधायाश्च । एषां सोदाहरणा व्याख्याकार्या ॥
2. 'ओः पु यणिज इति सूत्रे पययोरिति वक्तव्ये वर्गप्रत्याहारज- 10
कारग्रहो लिंगम्' इत्यारभ्य 'ज्ञापकस्य सजातीयापेक्षत्वात्' इत्यन्तं
सर्वं सम्यगुपपादय ॥ 'स्थाकृतिनिर्देशात् । अचूचुरत्' ॥ अस्य कोऽर्थः
कथं वा सिद्धिः । हलादेः किम् । एषिषिषति । अस्य कथं सिद्धिः ।
अस्मिन् विषये किमुक्तं दौक्षित्येन ॥ एषां मध्ये द्वयोरुत्तरं लिख ॥
3. ऊर्णुनुषति । ऊर्णुनुविषति । रिस्ति । उचिच्छ्रिषति । 14
परिपृच्छयते । तोषूर्तः । पित्रियात् संविद्रते ॥ एषां मध्ये सप्तानां
पदानां कथं सिद्धिः सप्रमाणं लिख ॥
4. 'गौणे कर्मणि दुह्यादेः' इति श्लोकस्य सोदाहरणा 3
व्याख्या कार्या ॥
5. धातुसम्बन्धे प्रत्ययाः । अस्य सोदाहरणा व्याख्या कार्या ॥ 2
6. नर्तकः — नर्तकी । गिरिशः । अभिशीनम् । सातिः । 5
तूष्णीं भूयः ॥ एषां मध्ये त्रायाणां कथं सिद्धिः सप्रमाणं लिख ॥
7. 'एष स्य भानुः' । 'तत्त्वं पुषेम' । 'इष्टीनं देवान्' । 6
'हिरण्यवर्णा शुचयः वायकाः' ॥ एषां कथं सिद्धिः ॥

SANSKRIT.

THIRD PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—MAHAMAHOPADHYAYA DR. SATISHCHANDRA VIDYABHUSHAN, M.A., PH.D.

Answer any FIVE questions.

1. What are the tests of the historical kinship of languages ? 14
Illustrate your answer.
2. Give the phonological equivalents of Indg. bh, d, q in Sanskrit. 14
Avestic, Greek, Latino and Gothic, and cite words exemplifying them.
3. Explain the theory of velar gutturals by a few apt examples. 14
4. Cite some roots and radicals common to Sanskrit, Avestic, 14
Greek, Latin and Gothic.
5. Attempt a comparison between Vedic Sanskrit and Classical 14
Greek accentuation.
6. Compare and contrast Sanskrit with either Hebrew or Chinese. 14
7. Describe the pronunciation of the letters of either the Greek or 14
the Gothic alphabet.
8. What are the main points in which Vedic Sanskrit differs from 14
Classical Sanskrit ?
9. Characterise the various Apabhramsa dialects from which the 14
so-called Gaudian languages of modern India are derived.

SECOND HALF.

Examiner—PANDIT GURUCHARAN TARKADARSAN.

चतुर्षु प्रश्नेषु त्रयाणामुत्तरं कार्यम् ।

10. प्रकृतिप्रत्ययनिपातविभागज्ञानस्य क उपायः ? तस्य च किं 10
प्रयोजनम् ?
11. शब्दार्थयोः कति सम्बन्धाः शाब्दबोधोपयोगिनः ? अप- 10
भ्रंशशब्द-तद्बोधार्थयोस्ते सन्ति न वा ? न सन्ति चेत्तत्र युक्तिः
प्रदर्शनीया ।
12. जातिशक्तिवादः कीदृशः ? तत्र साधिका बाधिका वा 10
का युक्तिर्जगदीशेन प्रदर्शिता ?

13. समासविधानेन संस्कृतभाषायाः क उत्कर्षः प्रदर्शितः ? 10
 अमृतं परमतज्ज्ञात्रलम्ब्य समासस्य कति विभागा जगदीशेनाभि-
 हिताः ? तदतिरिक्तः कश्चिद्विभागः श्रोमद्भिः प्रदर्शयितुं शक्यते
 चेत् सोऽपि प्रदर्शनीयः ।

SANSKRIT.

FOURTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—RAI RAJENDRACHANDRA SASTRI, BAHADUR, M.A.

1. Fully discuss the origin and antiquity of Indian scripts, specially referring to the views of European scholars on the subject. 50

SECOND HALF.

Examiner—MAHAMAHOPADHYAYA KALIPRASANNA BHATTACHARYYA, M.A.

- 2 Write an Essay, in English, on one of the following subjects :— 50

GROUP A.

- (i) The origin and development of the Epic poetry, and its final expansion into Classical and Kāvya poetry.
 (ii) The distinctive features of the Vedic and modern Sanskrit Literature.

GROUP D.

- (i) The influence of Sankarāchāryya on the Vedānta System of Philosophy.
 (ii) The theory of Māyā or world-fiction, and its influence on the other systems of philosophy.

GROUP E.

- (i) The twenty-four *tatvas* or Categories of the Sāṅkhya System of Philosophy.
 (ii) The Ethics of Sāṅkhya Philosophy.

GROUP I.

- (i) The Ancient Indian History—its source and development.
 (ii) The Ancient Indian Scripts—their origin and developments into different varieties.

SANSKRIT.

GROUP A.

FIFTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—PANDIT ASUTOSH SASTRI, M.A.

विधाय बन्धूक-पयोज-पूजने

कृतां विधो रत्नफली-बलि-श्रियम् ।

निनिन्द लब्धाधरलोचनाञ्जनं

मनःशिलाचित्रकमेव तन्मुखम् ॥ १ ॥

जितस्तयास्त्रेन कलानिधिर्दधे

द्विचन्द्रधीसाक्षिकायमायताम् ।

तथापि जिग्ये युगपत् सखीयुग-

प्रदर्शितादर्शबहूभविष्णुना ॥ २ ॥

भवन् सुद्युम्नः स्तौ नरपतिरभूद् यस्य जननी

तमुर्वश्याः प्राणानपि विजयमानस्तनुमवा ।

हरारब्धक्रोधेन्यनमदनसिंहासनमसा-

वलं कर्म्मोणश्रीरुदभवदलं कर्तुमधुना ॥ ३ ॥

कृदे सदेव ऋक्विमस्य विश्वतां

न केकिनां सर्पविषं विषर्पति ।

न नीलकण्ठत्वमथास्यदत्र चेत्

स कालकूटं भगवानभोच्यत ॥ ४ ॥

तदेकतानस्य नृपस्य रक्षितुं

चिरोदया भावस्मिवात्मनि श्रिया ।

त्रिहाय सापत्यामरञ्जि भीमजा

समग्रतद्वाञ्छितपूर्तिं वृत्तिभिः ॥ ५ ॥

एषु पञ्चसु श्लोकेषु यथेच्छं मल्लिनाथरीत्या त्रयो व्याख्या-
यन्ताम् ।

(a) प्रथमे श्लोके पूजने इत्यत्र द्विवचनस्य को हेतुः ? गन्धफली- 4
शब्दस्य कोऽर्थः ? केषां च कैः सह सादृश्यम् ? कञ्चात्रालङ्कारः ?

(b) द्वितीये द्विवचनद्वीपास्तिककायमायतामित्यस्य विग्रहवाक्यं 2
निर्दिश । बहू इत्यत्र च दीर्घत्वं कथम् ?

(c) तृतीये कोऽसौ पौराणिकी कथा ? यस्य इत्यनेन असौ इत्यनेन 4
च कयोः परामर्शः ? क्रोधस्य इत्यनेन कथमुपपद्यते ? कावचं
वक्तृबोधव्यो ?

(d) चतुर्थे अस्य कस्य ? कञ्चात्रालङ्कारः ? 2

2. पापात्तापा मुदं पुण्यात् परासोः स्फुरितिश्रुतिः । 4

वैपरीत्यं द्रुतं सात्तात्तदाख्यात बलाबले ॥ १ ॥

जनेन जानताऽस्मीति कायं नायं त्वमित्यसौ ।

व्याज्यते ग्राह्यते चान्यदहो श्रुत्याऽतिधूर्तया ॥ २ ॥

पुत्रेष्टिष्ठेनकारौरी मुखे दृष्टफला मखाः ।

न वः किं धर्मसन्देहमन्देहजयभानवः ॥ ३ ॥

प्रथमस्य तात्पर्यं गद्येन निश्चय । वैपरीत्यं कीदृक् ? आख्यातेति
कथं निष्पन्नम् ?

(a) द्वितीयस्य अन्वयः क्रियताम् । कथं श्रुतेरतिधूर्तत्वम् ? 3

(b) तृतीयश्लोके कोऽमी मन्देहाः ? ते च कथं भानुना जीयन्ते ? 2

3. राजा कीदृगवस्थः सन्धिं विग्रहं च कुर्यात् ? सन्धिर्द्वित्राणि 4
नामानि सलक्षणं निर्दिश ।

4. कतिविधाः खलु विग्रहयोः ? किमाख्याश्च ? तासु 4
कतमा अस्मत् सम्राजो विग्रहमुदपादयत् ? उत अयोनिरयं
विग्रहः ?

5. युद्धस्य किं लक्षणम् ? तच्च कतिविधं किमाख्यं च ? 5
इदानीन्तन युद्धस्य तस्य कतमस्यां विधायामन्तर्भावः ?

6. चतुर्गुणं च पाशतमश्चतो धारयेन्नृपः । 2
पञ्चमांशास्तु दशभा नष्टांशांश्च क्रमेणकान् ।

अत्रेवं प्रच्छते । अश्वसंख्याया अनिर्दिष्टत्वात् पादातावेक्षतु-
गुणाश्रयादिकं किं संख्यापेक्षकम् ? संख्याया यादृच्छिकत्वे च किमिति
कोट्यादिर्नादीयते ? सा च प्रत्यक्षं लक्षकर्मभाजो नृपस्य सुदूरपरा-
हतेव । तत् कौदृशमत्र समाधानम् ?

7. प्रायोगिकं मात्सरिकं माध्यस्थ्यं पाक्षपातिकम् ।

2

सोपन्यासं च जानीयाद् वचः संशयितं तथा ॥

एतादृशस्य वचसोऽज्ञाने का हानिः ? ज्ञाने च कदा केन कुत्र
कौदृशी कृतार्थता अलम्भि ?

8. व्याख्यायेतां इमौ श्लोकौ संस्कृतभाषया,—

6

चट्पत्य शस्त्रमायान्तं अपि वेदान्तगंगरे ।

निगृह्णीयात् स्वधर्मं धर्मपेक्षी नराधिपः ॥

विनश्यमानं धर्मं हि योऽभिरुतेत् स्वधर्मवित्

न तेन धर्महा स स्यात् मनुस्मृत्यनुगृह्णीति ॥

कस्येवौ श्लोकौ किमर्थञ्च भीष्मेण राजधर्मपर्व्याध्याये प्रोक्तौ ?

9. अपराधिनं ब्राह्मणं प्रति कौदृशो दण्डः प्रयोक्तव्यः ?

4

वचनोद्धारपूर्वकं तल्लेख्यं । राजधर्मपर्व्याध्याय भीष्मेण दर्शनशास्त्रो-
क्तानि कति प्रमाणानि अङ्गीकृतानि ? कानि च तानि ?

10. राज्ञा राज्यरक्षार्थं के के राजपुरुषा नियोक्तव्याः ? तेषाञ्च
किं किं कर्तव्यं ? कां च वृत्तिः ? वणिजां कृषिगोरक्षवृत्तीनाञ्च
सकाशात् करग्रहणव्यापारे राज्ञः कौदृशो व्यवहारः प्रशस्यतरः ?

4

11. माघस्य पञ्चदशवर्षस्य अभिप्रायं संक्षेपेण लिख संस्कृत-
भाषया । चतुर्दशवर्षस्यान्तिमश्लोकञ्च मल्लीनाथरीत्या व्याख्यायताम् ।

11

SECOND HALF.

Examiner—RAI RAJENDRACHANDRA SASTRI, BAHADUR, M.A.

12. Translate into Sanskrit:—

25

"It is a common error, vitiating all conclusions as to the early history of India, to suppose that the tribes with whom the Aryans, in their gradual conquest of India, came into contact were savages. Some were so. There were hill tribes, gypsies, bands of hunters in the woods. But there were also settled communities with highly developed social organisations, wealthy enough to excite the cupidity

of the invaders, and in many cases too much addicted to the activities of peace to be able to offer, whenever it came to a fight, a prolonged resistance. But they were strong enough to retain, in some cases, a qualified independence, and in others to impose upon the new nation that issued from the struggle, many of their own ideas, many of the details of their own institutions. And in many cases it never came to a struggle at all. The country was immense. Compared with its wide expanse the tribes and clans were few. Often separated from one another by broad rivers and impenetrable forest, there must have been ample opportunity for independent growth and for the interaction of peaceful contact."

SANSKRIT.

GROUP A.

SIXTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—PANDIT RAJENDRACHANDRA VIDYABHUSHAN.

The answers should be given in Sanskrit.

1. (a) वीर-चरितोत्तरचरितयोः कतरत् तावत् कविना विरचित- 2
पूर्व, कथं वा तत् निर्णेतुं शक्यते ?
- (b) कोऽयं कविर्भवभूतिर्नाम ? स जन्मना कदा कं देशं अलज्ज- 4
कार ? किं वा तस्य कवेर्नाम ? भवभूतिः श्रीकण्ठो वा ? श्रीमता-
सुत्तर प्रति का युक्तिः ?
- (c) कोऽयं काल-प्रिय-नाथः ? कथं खलु तत्पुरतः तद्वयान्नायां 2
वा भवभूतेर्नाटकप्रयोगः ?
- (d) के खलु पङ्क्तिपावनाः ? "पञ्चाग्नयः" "सोमपीथिनः" 3
"चरणगुरवः" — इत्येतानि तावद् व्यख्यान्ताम् ।
- (e) "यस्य ज्ञाननिधिर्गुरुः" इत्यत्र ज्ञान-निधिरिति गुरोर्नाम 1
विशेषणं वा ? कथं वा तद्वगम्यते ?

(1) मालतीमाधवे “श्रीपर्वते” सौदामिनी निवसतीति ज्ञायते, 3
 - कुत्र स श्रीपर्वतः ? कुत्र वा “पाराशिवसम्मोहः ? पद्मपुरमिति
 नगरं वा दक्षिणापथे कतमस्मिन् प्रदेशविशेषे स्थितमासीत् ।

2. (a) केशिदानवहस्ताद्राक्षा ऊर्ध्वश्याः समुद्धरणे कस्तावत् कवेरभि- 3
 प्रायः सिध्यति ? का वात्र नाटकीयोपयोगिता ? कथं मूर्च्छिताया
 ऊर्ध्वश्याः पुरतः राजोपस्थापनम् ?

(b) कतमस्मिन् खलु दृश्यकाव्यभेदे विक्रमोर्ध्वश्या अन्तर्भावः ? 3
 कतमस्मिन् वा मालतीमाधवस्य ? किं तल्लक्षणम् ?

3. (a) वक्तृबोद्धव्य-निर्देशपुरःसरं सालङ्कार-समर्थनञ्च व्याख्या- 26
 यतामधःस्थितयोरेकतरोऽंशः ।

A.

अयं च गगनात् कोऽपि तप्तचामौकराङ्गदः ।
 अवरोहति गैलाग्रं तडित्वानिव तोषदः ॥ १ ॥
 अपि चिन्तामणिश्चिन्तापरिश्रमपेक्षते ।
 इदं त्वचिन्तितं मनो कृतमाश्चर्य्यमार्यया ॥ २ ॥
 यत्किञ्चिद् दुर्मन्दाः स्वैरमाद्रियन्ते निर्गलम् ।
 तत्र तत्र प्रतीकारश्चिन्तयो वक्त्रे विधावपि ॥ ३ ॥
 बालस्य मे प्रकृतिदुर्ललितस्य पापः
 पापं व्यवस्यति समस्तमुदायुधोऽसौ ।
 अस्मिन् निवारयसि किं व्यवसायिनं मां
 क्रोधो न नाम कस्य न च तेऽस्ति लज्जा ॥ ४ ॥

B.

गुप्त्या साक्षान् महानख्यः स्वयमनेन वा कृतः ।
 करोति महतीं प्रीतिं अपकारेऽपकारिषु ॥ १ ॥
 पश्यामि तामित इतः पुरतश्च पश्चा-
 दन्तर्वहिः परित एव विवर्त्तमानाम् ।
 उद्बुद्ध-सुगन्ध कनकाब्ज-निभं वहन्ती-
 मासक्ततिर्यग्पवर्त्तितदृष्टिवक्त्रम् ॥ २ ॥
 कृष्ण-सारच्छदिर्योऽमौ दृश्यते काननश्रिया ।
 वनशोभावलोकाय कटाक्ष इव पातितः ॥ ३ ॥

असाधमन्त्रं क्षात्रस्य ब्राह्मणानामनुग्रहः ।

दुरासदं च तत्तेजः क्षत्रं च ब्रह्म-संयुतम् ॥ ४ ॥

(b) अधोरेखाणां व्युत्पत्तयः प्रदर्शयन्ताम्,—

4

4. "The best known and most popular of Bhavabhuti's plays is *Malatimadhava* —."

5

"The *Uttaramcharita* is a romantic piece containing many fine passages. Owing to lack of action, however, it is rather a dramatic poem than a play."

एवमुदीरयन्ति केचित् प्रतीच्याः पण्डिताः । अत्र श्रीमतां किं
अभिमतम् यथासुचि समालोचयामिदम् ।

SECOND HALF.

Examiner—BABC MURALIDHAR BANERJEE, M.A.

1. Can you accept King Sudraka as the author of the *Mrichhakatika*? If not, who was its author? What was his age? Support your views by proofs collected from the text.

5

2. Express the purport in simple Sanskrit of any two of the following extracts with reference to the context:—

8

(a) कामं नीचमिदं वदन्ति पुरुषाः स्वप्ने च यद्वर्धते
विश्वस्तेषु च वज्रना परिभवश्चौर्यं न शौर्यं हि तत् ।
स्वाधीना वचनीयतापि हि वरं ब्रह्मो न सेवाञ्जलि-
मार्गो ह्येष नरेन्द्रसोमिकवधं पूर्वं कृतोदौणिना ॥

(b) चिन्ताषक्तनिमग्नमन्त्रिमालिनं, दूतोर्मिशङ्काकुलं,
पर्यन्तस्थितचारनक्रमकरं, नागाश्चहिंसाश्रयम् ।
नानावाशककङ्कपत्तिरुचिरं, कायस्य सर्पास्पदम्,
नीतिक्षुब्धतटं च राजकरणं हिंस्रैः समुद्रायते ॥

(c) प्रभवति यदि धर्म्मो दूषितस्यापि मेऽद्या
प्रवलपुरुषवाक्यैर्माग्यदोषात् कथञ्चित् ।
सुरपतिभवनस्या तत्र यत्र स्थिता वा
व्यपनयतु कलङ्कं स्वस्वभावेन सैव ॥

3. Turn the following into Sanskrit, clearing the context:—

6

तदो अज्जए एणे निजगेहे अहिण्डकाणं सुहादो अणिअ
अपुट्टदेशदंशणकुदूहलेण ऽहह आगदे । इधविमए पविशिय उज्जङ्गिणं

एके अज्जे शुशुभ्रिदे । जे तालिसेऽपि अदंशयेपि अकदी दइअं थ
 किंतेदि । अवकिदं विशुमलेदि । किं बहुणा उत्तेण । दक्खिणदाए
 पल्ले लअं विअ अत्ताणअं अवगच्छदि । अलणागदवच्छले अ ।

4. What prakrit dialect is illustrated by the above passage ?
 Quote rules from Vararuchi to point out some peculiarities of it.

5. Translate into Sanskrit any one of the following extracts :—

(a) He was a glorious king,—powerful, just, generous and good. His head was formed like a shell. He had a beautiful queen, named Rana-rambhā. There is a legend that he was in his former birth a gambler. Having lost all his property in gambling and then being disgusted with himself, he desired to see the goddess Bhramara-vāsini on the Vindhya mountain, to obtain from her the boon of feeling indifferent to his own life. But the way to the place being infested with stinging bees and other insects he, to protect himself, first covered his body with a metal armour, over which he put on a buffalo hide, and over it again a plaster of clay mixed with cowdung. He then set off, reaching his destination quite emaciated by the long and difficult journey and tormented with the stings of bees which had pierced even his strong coverings. The goddess touched him and he was restored to his strength. The goddess then disappeared, and presently a beautiful maiden was seen by him near by. The woman compassionately spoke to him about his having taken so much pains to come up to this difficult place and told him to ask for a boon. He was charmed with her beauty and said to her that the boon he would ask for was that she should become his wife. The woman said she was no other than the goddess Bhramara-vāsini and could not be a wife to a mortal. But he insisted that he would ask for no other boon, and if she was to keep her word, she should accede to his request. She then told him that it would be so in another birth.

(b) The courtiers approached Vainyaditya and requested him to sit on the throne, but he declined. Thereupon all the people swarmed round him, and at last, to avoid disappointing them, he accepted their offer, but before doing so, took a pledge from them that in his time they should never tell a lie; should never break a promise; should cause no gratuitous injury; should abstain from unlawful means of gain; and should never kill a living creature. He then came down the hill and at Gagribal built an abode for himself near which two vaults were constructed. In one of these vaults the revenue of the Marāj Division and in the other that of the Kāmraj Division was to be deposited. He then issued an edict to the effect that villagers should themselves come at the end of a year and deliver the value of the tenth part of their produce into their respective vaults, and brought the whole revenue-collecting staff under reduction. The villagers were thus eased of all official interference. He appointed his brother, named Vikramāditya, as Commander-in-chief and kept the key of the Kāmraj Treasury vault with him. At the end of each month he used to open the treasury and disburse pay to the troops and other employees. Whatever money from miscellaneous sources was collected by day was distributed among the poor in the evening, nothing being left for the morrow. For his own subsistence he used to cultivate himself a piece of land, and out of it the value of the tenth part was, like that of other cultivators, given to the treasury as government share.

SANSKRIT.

GROUP A.

SEVENTH PAPER.

Examiners— { PANDIT LAKSHMAN SASTRI.
 { PANDIT BHAGBATKUMAR GOSWAMI.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

1. (a) प्रतिज्ञातं च मया महाश्वेतायाः त्वयि दुःखितायां नाह- 19
मात्मनः पाणिं ग्राहयिष्यामि इति तामहं पुनरप्यवदम्, सा तु
देवि ! मैवं स्म मनसि करोः । कुमतिरियम् । अतिदाहणोऽयं पाप-
कारी मकरकेतुः कदाचिददृश्यमाने प्रियजने जनितहृदयानुरागाज्जी-
वितमप्यहरति इत्यब्रवीत् ।

अत्रासच्छब्दार्थः कः ? प्रतिज्ञा च कीदृशी ? कदा कुत्र
किमर्थं वा कृता ? सर्वोऽयमितिहासः सरलसंकृतेन लेखनीयः ?
दुःखितत्वस्य किं प्रयोजकम् ? महाश्वेता का ? तस्याः स्वरूपोपवर्णनं
विधाय गद्यकाव्येऽस्मिन् तद्वृत्तान्तवर्णनेन किमुपकृतं भवति
तद्वक्तव्यम् । पापकारित्वं मकरकेतोः कथं सम्भवति ? पुरुषस्यैव
पापकारित्वात् तस्य चाऽशरीरत्वात् इति शङ्कायाः किं समाधानम् ?
अतिदाहणत्वं च तस्योदाहरणद्वारा स्पष्टीक्रियताम् ।

(b) उपनतायां चात्मचिन्तायामिवात्मकारितदृशदिशि श्रवयामि,
अनिवार्यविरहवेदनोन्मथ्यमानमानसाकुलेषु कलकरुणमुद्यैर्वाहरत्सु
चक्रवाकपुगलेषु उत्तेजितस्तरशरं समुत्तर्पमाणेषु चन्द्रमसोऽङ्गोत्सृष्ट-
धूसरालोकोत्थप्रयूलेषु विजृम्भमाणकुमुदिनैश्चासपरिमलग्राहिणि मन्दं
मन्दमावातुमारब्धं प्रदोषानिले च,—

अत्र समस्तानां पदानां विग्रहप्रदर्शनपूर्वकं पूर्वापरसन्दर्भलोच-
नगा व्याख्यायतामयमंशः । आत्मचिन्ता कीदृशी ? किंनिमित्ता च ?

अनयोरेकः प्रश्नः समाधेयः ।

2. पत्रलेखे ! पश्य, य एष पुर एवार्ककिरणनिवारणोल्लासितया 10
 प्रेङ्खुदालोललम्बशिखया मयूरपिच्छमय्या वङ्किकया ह्रुर्विभावदना-
 ऽश्वशरोज्ञायते केयूरकोऽर्धमिति, यावत्तथा सदैवं निरुपययिव,
 तावत्तस्मात्प्रहितपुरुषादुपलब्धात्मावस्थानं दृष्टिपथ एवावतीर्य तुरङ्ग-
 सादापतन्तं दूराद्दृतागमनधूलीधूसरश्यामीकृतशरीरं परिवर्तितमिवेत-
 गाकारेणाजिह्मताङ्गुगागसंस्कारमलिनेन वपुषा विषादशून्येन च सुखे-
 नान्तर्दुःखसम्भारपिशुनया च दृष्ट्या दूरत एवाऽपृष्टमपि कष्टां
 कादम्बरीसमन्वय्यामनन्तरमावेदयन्तं केयूरकमद्राक्षीत् ।

अत्र समस्तानां पदानां त्रिग्रहप्रदर्शनपूर्वकं व्याख्यायतामयं
 सन्दर्भः रेखाङ्कितानां पदानां साधनप्रकारश्च प्रदर्शयताम् . वक्ता
 कः ? अलङ्काराश्च के सन्ति ?

3. उत्थाय सरस्तीरकल्पितमनवरतापतज्जलासारसेकनिवारितो- 10
 षण्कारकिरणसन्तापमेकसन्तानावलौधारवर्षवेगवाहिना निर्भरिण्येव
 कुल्यया परिक्षिप्तमन्तरालस्मितजलजम्बूप्रवालाहताम्बकारं आमुक्त-
 कुसुमपल्लवलतावृताखिलस्तम्भसञ्चयम्, आमोदमानसरसस्फुटितार-
 विन्दराशित्प्रकरणमाकीर्णसरसत्रिसकाशमकाण्डकल्पितप्रावृत्काल-
 पिनस्ततो वर्षन्तीभिः शैवलप्रवालमञ्जरौभिः जलदेशताभिरिव सद्यः
 क्षानाद्द्रविक्वाहस्ताभिरुपगृहीतसुरभिकोमलजलाद्रकाभिरनाश्यानचन्द-
 नाङ्गरागहारिणीभिर्हारवलयमात्राभरणाभिरवतंसितबालशैवलप्रवाला-
 भिरमृणालतालवृत्तकर्पूरपटवासहरिचन्दनचन्द्रकान्तमणिदर्पणाद्युपकरण-
 पाणिभिर्वह्नीभिर्वाङ्गनाभिरुपेतम् ।

व्याख्यायतां पूर्ववत् ।

4. वैशम्पायनवृत्तान्तः सरलेन संस्कृतेन वर्णनीयः । 10

5. इत्याज्ञानन्तरं च मेघनादेन प्रवेशितान्दूरत एव समं ब्राह्म- 10
 पातेन पञ्चाङ्गालिङ्गतमहीतलांश्चन्द्रापीडचरणवन्दनसङ्गावनिहितो-
 त्पदमनिभृतदृष्टौस्ताननन्यदृष्टिश्चिरमिवावलोक्य कादम्बरी स्वयमेवाभा-
 षत - भद्रमुखाः ! परित्यज्यतामयं क्रमागतस्नेहसङ्गावसुलभः शोका-
 वेगः । यत्खल्वनालाचितावधि दुःखावसानमेव दुःखं तन्मरणभीरो-
 र्भवन् नाम शोकावेगाय, यत्पुनः सुखोदकं तत्पुनः स्थितया सुखप्रत्या-
 शयेवान्तरितं नापतति हृदये, तदेष वृत्तान्त एवविधो येन न केवल-

मत्र निरवकाशता शोकस्य प्रयुत सुदूरभिन्नवृत्तेर्विस्मयस्यावसरः
किमत्र परिबोधनेन ?

व्याख्यायतां पूर्ववत् ।

6. Note the important points in the career of Harsha from the time when he accompanied his brother Rajyavardhan on a punitive expedition against the Huns to the time of his beginning a vigorous search for his sister Rajyasri. 12

Write what you know of— Or,

नागसेन, स्वर्णचूड, बृहद्रथ, महासेन, सुमित्र, पुष्पमित्र,
चसुदेव and चन्द्रकोतु ।

7. Annotate (A) or (B) in Sanskrit.

13

A.

अन्यस्मिन्नहनि मध्यन्दिने ... स्थानस्थानेषु पवनबलकुटिलाभिः
कोटिहामधूमलेखाभिरुत्पलसन्तौभिर्यमभहिषविषाणकोटिभिरिव उल्लि-
ख्यमानम् ... उपरि कालमहिषालङ्कारकालायसकिङ्किणीभिरिव कटु
कणन्तीभिर्दिवसं वायसमण्डलीभिर्भ्रमन्तीभिर्गात्रेद्यमानप्रत्यासन्नाशुभं,
क्वचित् प्रातश्चायितस्त्रिगधवाश्ववाराध्यमानाहिब्रध्मं, क्वचिद्दीपिकादद्य-
मानकुलपुत्रकप्रसाद्यमानमातृमण्डलं, क्वचित् सुखोपहाराहरणोद्यत-
द्रविडप्रार्थमानामर्दकं, क्वचिदभ्युद्विग्यमाणब्राह्मणोपपाच्यमान-
चण्डिकम्, अन्यत्र शिरोविधृतविलीयमानगुग्गुलुविकलनत्रसेव-
कानुनीयमानमहाकालम्, अपरत्र निशितशस्त्रीनिकृतात्मसांसहोम-
प्रसक्ताऽऽप्रवर्गम्, अपरत्र प्रकाशनरपतिकुमारक्रियमाणमहामांस-
विक्रयप्रक्रमं ... स्कन्दावारमाससाह ।

B.

देव न क्वचित् कृताश्रयया मलिनया मलिनतराः कोकिलया
काका इव कापुष्पा इतलक्ष्या विप्रलभ्यमानमात्मानं चेतयन्ते ।
अथो हि दोषाश्चतादयः कामला विकाराः । ... नासौ तपस्वी
जानात्येवं यथाभिचारा इव विप्रकृताः सदाः सकलकुलप्रलयमुपहरन्ति
मनस्विनः । जलेऽपि ल्वलन्ति ताडितास्तेजस्विनः । ... मनस्विनां
हि प्रधानप्रधानधने धनुषि ध्रियमाणे, सति च कमलाकलहंभीकेलि-
कुवलयकानने कृपाणे, कृपणोपायाः पयोधिमघनप्रभृतयोऽपि
शौचमुत्थानस्य ... । ... सर्वप्रहाभिभवभास्वराणां हि सुभटकराणाम्

अप्रतो दिगग्रहणे पङ्कवः पतङ्गकराः । ... द्वयमेव च चतुःषागरसम्भ-
तस्य भूतिसम्भारस्य भाजनं — प्रतिपत्तदाहि दाहणं वड्ढासुखं
वा, महापुरुषहृदयं वा । तेजस्विनः सफलाननकस्य परोराशिसहजस्य
कुतो निवृत्तिरुपमणः ? ... देव, देवभूयं गते नरेन्द्रे, दुष्टगौडभुजङ्ग-
जग्धजीविते च राज्यवर्द्धने, वृत्तस्मिन् महाप्रलये, धरणिधारणाधुना
त्वं शेषः । ... तदद्यैवं कृतप्रतिज्ञो गृहाण गौडाधमजीवितध्वस्तये
जीवितसंकलनाकुलकालाकान्तदन्तयात्राचिह्नध्वजं धनुः । नष्टयमरा-
तिरक्तचन्दनचर्याशिशिरोपचार मन्तरेण शान्यति परिभवानलपच्य-
मानदेहस्य देवस्य दुःखदाहन्तरः सुदासणः ।

8. Translate into English :—

मुनिरपि मनागुपजातहासः “राजन्, अतिमात्रमुत्सुका
त्वमिदानीमेव वनमिसां नेतुमिच्छसि । विधेहि तावन्मन्त्रजप-
विधिम् । आराधितप्रसन्नया राजलक्ष्म्या वितीर्णमाप्नोतु पुत्रवर-
मियम् । आसादयतु तत्प्रभावेण भुवनत्रयख्यातमहसमात्मजम् ।
पश्यतु तदीयमानन्दितसकलसंसारं कुमारभाक्षम् । अनुभवतु तद्वधू-
जनोपजनितानि चरणपरिचर्यासुखानि । ततो धृताधिज्यधनुषि
भुवनभारधारत्तमे तत्र निक्षिप्य निजराज्यसम्पदं समर्थे प्रजाः प्रस्थितेन
स्वस्थमनसा त्वयैव सहिता गोमेष्यति पश्चिमे वयसि वनम् ।
अस्माकमप्येतदर्थं एवापमारम्भः । अन्यथा गृहस्थकार्येषु कर्तव्येषु
को यतोनामधिकारः ?” इत्युक्ता पुनरवासीत् — “नरेन्द्र,
पुष्करद्वीपादागतेन मयापि जम्बूद्वीपवर्तिषु प्रधानतीर्थेषु संप्रति
प्रयातव्यम् । अनुजानौहि माम् ।” इत्यभिधाय संवृतवज्रलांशुको
जपन् शनकैराकाशगमनदायिनीं विद्यामासनाकुत्तस्थौ ।

अनूत्यितयोश्च तयोरादरकृतप्रणामयोः क्रमेण निक्षिप्य पक्षपाता-
र्द्रतारकं चक्षुरीषदुत्क्षिप्तदक्षिणकरः स्फुटाक्षरोद्गारया गिरा दस्त्वा-
श्लिषमन्तरिक्षमुदपतत् । अन्तरितदर्शने च तस्मिन् रणरणकदूषमानः
शून्य इव परिध्वः स्थित्वा मुहुर्त्तं हर्म्यश्लिखरादवततार । निर्वर्त्तितमा-
ध्याद्विकविधिश्च तत्कालकृतसन्निधीनां गुरुणां ब्राह्मणानां बुद्धिबचि-
वानाञ्च यथावृत्तं सर्वमेव मुनिवृत्तान्तमाख्यात, देवतागधनविषये
चापृच्छत् ।

SANSKRIT.

GROUP A.

EIGHTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—MAHAMAHOPADHYAYA PRAMATHANATH TARKA-BHUSHAN.

1. किं तावदवरकाव्यस्य लक्षणं ? कतिविधं तत् ? दर्पणकृता 10
अवरकाव्यं कथं नाङ्गीक्रियते ? एतस्मिन् मतद्वये कस्य मतं भवति
रोचते ? सचिवीजं प्रदर्शनीयम् ।

• अथवा,—

सरस्वतीकण्ठाभरणकारेण किं तावत् काव्यलक्षणं प्रदर्शितं
तल्लक्षणं काव्यप्रकाशमतानुयायिना अङ्गीकर्तव्यं न वा ? अनङ्गीकारे
हेतुः प्रदर्शनीयः अङ्गीकारपक्षे नास्ति हेतुप्रदर्शनापेक्षा । एकाग्रली-
कारमते यत् काव्यलक्षणं तत् काव्यप्रकाशकृतसम्मतं न वेति विचार्य
निरूप्यताम् ।

2. (a) अर्थशक्त्युद्भवव्यङ्ग्यस्य च्छनेर्भेदाः सोदाहरणोपन्यासं 10
प्रदर्शयन्ताम् ।

अथवा,—

(b) अन्विताभिधानवादिनां मतमनुसृत्य व्यञ्जनावृत्तेः खण्डनं
कृत्वा पुनः सिद्धान्तानुसारेण सा व्यवस्थाप्यताम् ।

3. रसस्वरूपे निरूपणीये यानि चत्वारि प्राचीनमतानि काव्य- 12
प्रकाशकृता प्रदर्शितानि तेषां साकल्येन स्वरूपं प्रदर्श्य तेषु कस्मिन्
कस्मिन् मते केन केन हेतुना काव्यप्रकाशकारस्य असम्मतिः सूचिता
इति वेश्ट्येन प्रतिपाद्यताम् ।

4. वीजं विन्दुः पताका प्रकरी इत्येते शब्दा येषु अर्थेषु प्रयुक्ताः 12
सोदाहरणोपन्यासं ते प्रदर्शयन्ताम् ।

5. आगत्य सम्प्रति विधोगाविषंभुलाङ्गी-
सम्भोजनीं क्वचिदपि क्षपितत्रियामः ।
एतां प्रसादयति पश्य जनैः प्रभाते
तन्वङ्कि पादपतनेन सङ्ख्यारश्मिः ॥

काव्यमेतत् ध्वनिगुणीभूतवङ्ग्यं वा इति सयुक्तपद्यासं निरूप्य-
ताम्, अथ ध्वनिर्त्वे कस्मिन् ध्वनिभेदे गुणीभूतवङ्ग्यत्वे वा कस्मिन्
तद्धेदे अन्तर्भाव इत्यपि प्रतिपादनीयम् ।

अथवा,—

लिखन्नास्ते भूमिं ब्राह्मणवतः प्राणदयितो
निराहाराः सख्यः सततमदितोऽर्चननयनाः ।
प्रश्रित्यक्तं हृद्वं हसितपठितं पञ्चरश्मि-
स्तवावस्था चेयं विश्वज कठिने मानमधुना ॥ इति

अयं श्लोकः कस्मिन् ध्वनिकाव्यभेदोऽन्तर्भवति ? अत्र लिखन्नि-
त्यत्र लिखतीति पाठे काव्यप्रकाशकाराण्युक्तौ वैशद्येन प्रतिपाद-
नीयम् ।

SECOND HALF.

Examiner---PANDIT ASUTOSH SASTRI, M.A.

1. Translate into English the slokas in *either* A or B :—

2.5

A.

तमापतन्तं नकुलं जवेन
कर्णस्य पुत्रः सहसाभिपत्य ।
रथे जिघांसन्निशितैरनेकैः
समन्ततः सायकैः प्रत्यविध्यत् ॥
स तुद्यमानो नकुलः पृथक्सै-
र्विद्याधवीरं स चुकोप विद्वः ।
महाह्रवं रक्ष्यमाणो महात्मा
आत्रा भीमेनाकरोत्तत्र भीमम् ॥
तं कर्णपुत्रोविध्यमन्तमक्रं
नराश्वमातङ्गयथप्रवेकान् ।

क्रीडन्तमष्टादशभिः पृषत्कै-
 विव्याध वीरं नकुलं सरोषः ॥
 स तेन विह्वोऽतिभृशं तरस्वी
 महाहवे वृषसेनेन राजन् ।
 क्रुद्धोऽभ्यधावत् समरे जिघांसुः
 कर्णात्मजं पाण्डुमुतो नृवीरः ॥
 वितत्य पत्तं सहसापनन्तं
 श्येनं यथैवामिषलुब्धमाजौ ।
 श्रवाकिरङ्ग वृषसेनस्तत्तं
 शितेः शरेनकुलमुदारवीर्यम् ॥

B.

उभावजेयावहितान्तकावुभौ
 उभौ जिघांसू कृतिनौ परस्परम् ।
 महाहवे वीरतरौ समीयतु-
 महेन्द्रजम्भाविभ्र कर्णपाण्डवौ ॥
 ततो महास्त्राणि महाधनुर्धरौ
 विमुञ्चमानाविपुभिर्भयानकैः ।
 नराश्चनागानमिताग्निजघ्नतुः
 परस्परज्वापि महारथौ नृप ॥
 ततो विस्रुः पुनर्द्विता नराः
 नरोत्तमाभ्यां कुरुपाण्डवाश्रयाः ।
 सनागपत्तप्रस्तरया दिशो दश
 तथा यथा सिंहहतावनोकसः ॥
 ततस्तु दुर्योधन भोजसौत्रलाः
 कृपश्च शरद्वतसूनुना सह ।
 महारथाः पञ्च धनञ्जयाच्यतो
 शरैः शरीरान्तकरेतादयन् ॥
 धनूषि तेषामिषूधीन् हयान् गजान्
 रथान् समूतांश्च धनञ्जयः शरैः
 समं प्रविच्छेद पराभिनच्च तान्
 शरोत्तमेर्द्वादशभिश्च मृतजम् ।

2. Answer questions of *either* of the following groups:—

A.

(a) Define गुण, रौति and अलङ्कार; and characterize their general 13
as well as special relation to रस. Show the presence of at least three
merits of style (गुण) according to the school of Old Rhetoricians (e.g.
Dandin and *Bhoja*) as well as the later school (e.g. *Mammatha* and
Vishwanatha):—

विकचकमलगन्धैरन्धयन् भङ्गमालाः
सुरभितमकरन्दं मन्दमावाति वातः ।
प्रकटमदनमाद्याद्रथोवनोद्दामरामा-
रमणरमसखेदस्वेदविच्छेददत्तः ॥

(b) Explain and illustrate *only one* of the following:— 4

- (i) गुणः स्यादप्रतीतत्वं जलज्ज्वं वक्तृवाच्ययोः ।
- (ii) निर्दुता तु ख्यातेऽर्थं दोषतां नैव गच्छति ।
- (iii) सज्जार्थादिर्विरुद्धस्य वाध्यत्वोक्तिर्गुणवद्वा ।

(c) State the fundamental principle on which a शब्दालङ्कार can be 5
distinguished from an अर्थालङ्कार; and distinguish लाटानुप्रास from
यमक .

B.

(a) Reproduce *Vidyadhara's* criticism of the following remark of 10
Bamana:—“काव्यशोभायाः कर्तारो धर्मा गुणालङ्कृतिशयज्ञेयस्त्वलङ्काराः ।”
Illustrate a case of समता (sameness of style) being a defect (दोष) .

(b) State the fundamental principle of distinguishing a पददोष 4
from a वाक्यदोष .

(c) Distinguish, giving examples of each, the following Figures of 8
Speech (अलङ्कार) :—

रूपक and अतिशयोक्ति; अप्रस्तुतप्रशंसा and समासोक्ति. Name and
characterize the cases of लक्षणा connected with each of the above
Figures.

3. Name and characterize the Figure of Speech (अर्थालङ्कार) in 2
only one of the following slokas:—

आषाढ जन्म मनुजेषु चिराद्वरापं
तत्रापि पाठवमवाप्य निजैर्निर्याणाम् ।
नाभ्यर्चयन्ति जगतां जनयित्री ये त्वां
निःश्रेयिकाग्रमधिरुद्ध पुनः पतन्ति ॥ क ॥

इति सूर्यसहस्रस्य भवेद्वयुगपदुत्थिता ।
 यदि भाः सदृशी सा स्याद्भासस्तस्य महात्मनः ॥ ख ॥
 जम्बूनां कुसुमोत्करे नवमधुनारब्धपानोत्तवाः
 कीराः पक्कफलाशया मधुकौशुम्बन्ति मुञ्चन्ति च ।
 एतेषामपि नीलकिंशुः स्रक्षैरेभिः समानत्विषां
 पुष्पञ्चान्तिभिरापतन्ति सहसा चञ्चूषु भङ्गाङ्गनाः ॥ ग ॥

(a) Notice any rhetorical defect (दोष) in sloka (क) .

SANSKRIT.

GROUP E.

FIFTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—MAHAMAHOPADHYAYA PRAMATHANATH TARKA-BHUSHAN.

1. “निजशक्त्यभिव्यक्तिः स्वतः प्रामाण्यम् ।” 20
 “नानिर्वचनीयस्य तदभावात् ।”
 “तेषामपि तद्वयोगे दृष्टवाद्यादिप्रसक्तिः ।”
 “आधेयशक्तिविद्धौ निजशक्तियोगः समानन्यायात् ।”
 “प्रकृतिवास्तवे च पुरुषस्याध्यासविद्धिः ।”
 “समानः प्रकृतेर्द्वयोः ।”
 “नियतकारणात् तदुच्छिस्तिर्ध्वान्तवत् ।”
 “पूर्वभावित्रे द्वयोरेकतरस्य ज्ञानेऽन्यतरयोगः ।”
 एतेषु चत्वारि सूत्राणि अनिरुद्धवृत्त्युक्तिदिशा वैशद्येन व्याख्या-

यन्ताम् ।

2. “किमिदं ध्वान्तं नाम अभावस्तम इति केचित् तन्न विधि- 20
मुखप्रतीतेः अभावत्वे किमालोकप्रागभावः प्रध्वंसाभावो वा, यदि
प्रागभावः तर्हि यथा घटे उत्पन्ने घटप्रागभावो नष्टः तथा आलोके सति
आलोकप्रागभावो नष्ट इति प्रत्ययः स्यात् । भविष्यदालोकप्रागभा-
वसत्त्वे वर्तमानालोके सति अन्धकारोऽविनष्टः स्यात् । अथ प्रध्वंसा-
भावः तथाप्यनश्चरत्वात् आलोकान्तरे सति अन्धकारप्रतीतिप्रसङ्गः यथा
घटान्तरे उत्पन्ने नष्टघटप्रध्वंशोऽस्येव अन्योन्याभावस्तु वस्तुनोरपत्तिः ।
अत्यन्ताभावस्तु दुष्टत्वात् नाशङ्कनीयः ।”

कस्य सूत्रस्य व्याख्यानस्य अयं वृत्तिप्रत्ययः ? अस्य ग्रन्थस्य
वैशद्येन व्याख्या क्रियतां अत्यन्ताभावपक्षः कथं दृष्टः ? प्रध्वंसाभावस्य
अनश्चरत्वे उपादाननाशे कार्यद्वयप्रध्वंशः किमवलम्ब्य तिष्ठतीति
निरूप्यताम् ।

अथवा,—

“नन्वभाव एव नास्ति कुतस्तस्य नाशानाशचिन्ता । कथं तर्हि
अघटे भूतलं इति ज्ञानं ? भूतलालम्बनं चेत् घटवत्यपि भूतले
तदभावज्ञानप्रसङ्गः भूतलस्य तादवस्थात् केवलभूतलालम्बनं अभाव-
ज्ञानं घटे सति केवल्यं नास्ति चेत् किं भूतलस्वरूपमात्रं केवल्यं
तदतिरिक्तं वा यदि स्वरूपमात्रं घटे सत्यपि तस्य सङ्गादादभावज्ञानं
स्यात् अतिरिक्तपक्षे स एवाभावः ।”

कस्य सूत्रस्य व्याख्यानवसरे अयं विचारः वृत्तिकृता अवतारितः
अस्य वृत्तिप्रत्ययस्य तात्पर्यं साकल्येन वैशद्येन च प्रतिपाद्यताम् ।
अभावस्य अधिकाररूपत्वं तदतिरिक्तत्वं वा इति प्रश्ने किं तावत्
षिद्धान्तिभिः समाधानं कृतम् ।

3. पुनरुक्तं हेतुकिमिदं निमित्तनेमित्तिकप्रसङ्गेन । 10

प्रकृतेर्विभुत्वयोगान् नटवद् व्यवतिष्ठते लिङ्गम् ॥

आचार्यगोडपादोक्तदिशा प्रकृतसङ्कृतिं प्रदर्श्य व्याख्यायतामियं
कारिका ।

4. सात्त्विकाहङ्कारस्य किं लक्षणं गोडपादेन दर्शितम् ? किं 10
वा तेजसाहङ्कारस्य ? तेजसाभयमिति प्रतीकमुद्भूतं गोडपादेन
यद्गोडपादं तद् वैशद्येन लिख्यताम् ।

6. कारणमस्यव्यक्तं प्रयत्नेति त्रिगुणतः समुद्रयाच ।

15

परिणामतः सलिलदत्तं प्रति प्रतिगुणाग्रयविशेषात् ॥

गौडपादोक्तदिशा अस्याः कारिकाया विशदव्याख्या क्रियताम् ।
अत्र समुद्रयादिति पदतात्पर्यवर्णनावसरे भाष्यकृता कौदूशः खलु
दृष्टान्तः प्रदर्शितः ? एकस्मात् प्रधानात् व्यक्तस्य उत्पत्तिस्वीकारे तस्य
एकरूपता स्यात् इतीपमाशङ्का भाष्यकृता कथं परिहृता ?

SECOND HALF.

Examiner—RAI RAJENDRACHANDRA SASTRI, BAHADUR, M.A.

Translate into English :—

25

“सत्त्वादिगुणत्रयी सत्त्वाद्युतिष्ठिता प्रकृतिरिति तु न शङ्कनी-
यम् । किन्तु गुण एव प्रकृतिः । ‘सत्त्वादीनामतदुधर्मत्वं तद्रूपत्वा’-
दिति सांख्यप्रवचनसूत्रेण सत्त्वादीनां प्रकृतिस्वरूपत्वहेतुना प्रकृतिधर्म-
त्वप्रतिषेधात् । ‘प्रकृते र्णं’ इत्यादिवाक्यान्तु ‘वनस्य वृक्षा’ इतिद्व-
बन्धुयम् । ‘सत्त्वं रजस्तम इति प्रकृतेरभवन्तु गुणा’ इति प्रकृति-
कार्यत्ववचनं तु गुणनित्यतावाक्यविरोधेन महत्तत्त्वकारणीभूतकार्य-
सत्त्वादिपरमेव । महदादिस्पृष्टिर्हि गुणवैषम्याच्छ्रूयते । तच्च वैषम्यं
सजानीयसंवलनेन प्रकाशादिफलोपहितः सत्त्वादिव्यवहारयोग्यः
कारणगुणानां परिणाम इति । सत्त्वादित्रयं च द्रव्यत्वेऽपि पुरुषोप-
करणत्वाद् गुणा इत्युच्यन्ते । द्रव्यत्वज्जैषां संयोगविभागादिमत्तया
उपादानकारणत्वेन सिद्धम् । एषां सुखदुःखमोहात्मकत्वं प्रवादस्तु
धर्मधर्म्यभेदात् मनसः संकल्पात्मकत्ववत् । तेषु त्रित्ववचनं तु सत्त्व-
त्वादित्रिभाजकोपाधिप्रयोज्यैव वैशेषिकाणां नवद्रव्यवचनवदिति ।
तानि च सत्त्वादीनि यथोपयोगमणुत्रिभुपरिमाणकानि मध्यमपरि-
णामत्वेऽनित्यत्वापत्तिः । सर्वेषां त्रिभुल्ले कार्याणां परिच्छिन्नत्वानुप-
पत्तिः । ननु प्रकृतेः परिच्छिन्नत्वेऽकृताक्रियत्वमिति सांख्यसिद्धान्तः,
स च विरुध्यत इति चेत्, मैत्रं, गन्धस्य पृथिवीत्वव्यापकत्ववत्
प्रकृतेर्यापकत्वम् । तच्च प्रकृतित्वस्य देशिकाभावप्रतियोगितानवच्छे-
दकत्वम् । एकत्वं च सर्गभेदेन नानात्वाभावः । अक्रियत्वञ्च अग्र्यव-
सायाभिमानादिप्रतिनियतक्रियाराहित्यम् । अन्यथा श्रुतिस्मृतिविद्व-
प्रकृतिकोभस्यानुपपत्तिरिति ।”

SANSKRIT.

GROUP E.

SIXTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—PANDIT SAKAİNARAYAN SASTRI.

1. सवत्र कखयोरेकख्योत्तरं वेयम् ।

(a) सांख्यसागतत्वकौमुदीप्रवचनमाख्यानां मते का प्रमा किञ्च प्रमाणम् । उक्त ग्रन्थानां लक्षणं मतभेदोऽस्ति न वा एतत् सर्वं स्पष्टतया विवेचनीयम् ।

(b) किमनुमानं किञ्च तस्य लक्षणं वाचस्पतिमिश्रैरनुमानस्वीकारार्थं किं कारणं प्रदर्शितम् । प्रकृतेः सिद्धिर्वीतेनावीतेन वा भवति तयोः किं स्वरूपम् । एतत् वैशद्येन मीमांसनीयम् ।

2. प्रकृतिनिबन्धना चेन्न तस्या अपि पारतन्त्र्यम् । परिच्छिन्नं न सर्वोपादानम् । त्रयाणां स्वालक्षण्यम् । इन्द्रेश्वरसिद्धिः सिद्धा । निराशः सुखोपिङ्गलानम् । घृष्टो व्यपदेशाद्वा । केषाञ्चित् त्रयाणां सूत्राणां भाष्यानुसंगिणी व्याख्या कर्तव्या ।

3. सांख्यमते समवायमादृश्ययोः का गतिः ।

(a) वेदानां नित्यत्वमनित्यत्वं वा सांख्यसम्मतं । सपुस्तिकं निरूपणीयमेतत् ।

(b) अर्थापत्तिः कुत्र कथमन्तर्गता ।

(c) ग्रन्थत्रयस्य एकप्रकारक एव शरीरबिचारोऽप्यवा भवति काश्चिद्विरोधः । स्वाभिप्रायः सप्रमाणं प्रकटीकर्तव्यः ।

4. ऊहादीनां कौ द्वावर्थौ ।

(a) कश्च भवतां सम्मतः ।

(b) तत्त्वतो नैव दोषाय तथापि त्याज्यमेव तत् । स्वभावाद्दृश्यत्वं स्वानुभूत्या हि सिध्यति । अस्य व्याख्या विधेया ।

SECOND HALF.

Examiner—BARU MURALIDHAR BANERJEE, M.A.

5. Are the coincidences between Buddhism and the Sankhya system so essential as to justify the supposition that Buddhism developed from the Sankhya system or the latter from the former or, at least, both arose simultaneously and represent the same anti-Vedic movement of thought? Or is the Sankhya system the product of a later pro-Vedic movement and represent a partial return to the Vedic standpoint after the Buddhist reaction? 7

6. "The Sankhya philosophy had been originally, and has remained up to the present day, in its real contents, un-Vedic and independent of the Brahminical tradition." Examine this view and show by an analysis of the Vedic and non-Vedic elements of the Sankhya system which are original and essential to it and which are a later graft. What is the view of Vijnāna Bhukshu regarding this point? 6

7. Can Prakriti be identified with Matter and Parush with Mind? If not, why? Is the Sankhya evolution of the world from Prakriti Materialistic or Idealistic? 6

8. What is the date of the Sankhya Pravachana Sutra? State the positive and negative evidence in support of your view. What are the earliest extant Sankhya documents? 6

9. Translate any one of the following extracts into Sanskrit:— 25

(a) What is this thing, called darkness? Some say: "Darkness is a non-entity." This is not (true), because we perceive it in a positive form. With reference to the opinion that darkness is a non-entity, (lohus ask): Is it prior or posterior non-existence of light? If "prior non-existence," then (we reply:) As, when a jar is produced, the prior non-existence of the jar is destroyed, just so (in our case), when light appears, there ought to be the notion that "the prior non-existence of light is destroyed." "Then," (says the opponent) "it is posterior non-existence (of light)." As, however, this is imperishable, darkness ought to be perceived (even) in the presence of a new light, just as (even) after the production of a new jar the posterior non-existence of a destroyed jar continues. But (as regards reciprocal non-existence, this subsists regularly between two (positive) things. That (darkness) be *absolute* non-existence (of light), is not to be supposed, because this is fallacious.

But the tenet 'darkness is an entity' follows from the fact that (darkness) is perceived, (because a perception is only possible) when there is an entity.

(b) If the Lord were an independent creator, he would create even without work. "But he creates with the co-operation of work." (Then) let work alone be (the cause efficiens of the fruit); what need is there of a Lord? "But a co-operative factor does not set aside the force of the chief cause." (This maxim is not applicable to our case), because the independence (of the Lord) would be annihilated. Moreover, we know by experience that (all activity) is either egotistic, or for the sake of others. Now, the Lord has no egotistic aim; (and) if (you declare that his activity) is for the sake of others, (we reply that) it is unfit to ascribe the painful creation to a benign (Lord). Besides, an activity which is (exclusively) for the sake of others does not exist, because even by service or the like, bestowed on others, one attains egotistic objects and is active for this reason. Therefore, let work (i.e. merit and demerit) alone be the cause (efficiens) of the world.

Does the Lord (in your opinion) create with or without regard to the work ? In the former case let work alone (and) not the Lord be the cause ; in the latter the independence (of man) would be null and void.

GROUP E.

SEVENTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—PANDIT LAKSHMAN SASTRI.

- (a) योगस्य किं लक्षणं सूत्रभाष्यवार्तिकवृत्तिकारैरुपवर्णितं 27
तदुच्यताम् । तद्वटकपदानां व्यावृत्तयश्च प्रतिपाद्यताम् ।
- (b) सम्प्रज्ञातासम्प्रज्ञातयोर्लक्षणसमुपवर्ण्यताम् ।
- (c) सवितर्कनिर्वितर्कयोर्वैलक्षण्यं स्पष्टमुच्यताम् ।
- (d) क्रियायागः कः ? किञ्च तस्य प्रयोजनम् ।
- (e) द्रष्टुः स्वरूपं कीदृशं सूत्रभाष्यानुसारेण प्रतिपाद्यताम् ।
- (f) शब्दार्थप्रत्ययानामितरेतराध्यासात्सङ्कास्तत्प्रविभागसंयमात्
सर्वभूतरुतज्ञानमिति सूत्रं भाष्यवार्तिकाद्यनुसारेण व्याख्यायताम् ।
2. एतेषां मध्ये यत्किमपि प्रश्नत्रयं समाधेयम् । 27
- (a) पुरुषस्यापरिणामित्वं कया युक्त्या समर्थितम् ।
- (b) पुनश्च ज्ञानरूपत्वसाधिका युक्तिः का ?
- (c) योगिमते पुरुषस्य सविशेषत्वं निर्विशेषत्वं वा ? युक्ति-
रुच्यताम् ।
- (d) ज्ञानरूपस्यात्मनोज्ञेयत्वमस्य नस्ति ? उभयत्र साधक-
साधकयुक्तीरुपन्यस्य सिद्धान्तः प्रतिपादनीयः ।
- (e) गोमयपायसीयनायो भाष्यकृता क्रिमर्थं प्रतिपादितः ? कश्च
स नायः ?
- (f) परिणामत्रयं कया युक्त्या साधितम् ? किं च तत्तयम् ?
3. एतेषां मध्ये यत्किमपि प्रश्नत्रयं समुत्तरणीयम् । 18

(a) (क) संसारः सादृशतानादिरुभयत्र युक्तीः प्रदर्श्य सिद्धान्तो निरूप्यताम् ।

(b) (ख) भोजराज्येन सर्वदर्शनसम्मतं मोक्षस्वरूपं किमुक्तम् ?

(c) (ग) स्थूलस्वरूपसूक्ष्मान्वयार्थवत्त्वसंयमाद्भूतजय इति सूत्रं व्याख्यायताम् ।

(d) (ङ) चित्तस्य कौटूह्यं परिमाणं भाष्यकृतः प्रदर्शितम् तत्र मतभेदाश्च कौटूहाः प्रदर्शिताः ।

एतेषु यत्किमपि प्रश्नद्वयं समुत्तरणीयम् ।

(e) योगाङ्गसमाधेरङ्गीभूतस्य समाधेः को भेदः ?

SECOND HALF.

Examiner—PANDIT BHAGBATKUMAR GOSWAMI.

4. Translate into English any two of the following:—

25

(a) वित्तं हि ज्ञानसुखादिशीलत्वात् प्रवृत्तिगुणादिमत्त्वादाल-
स्यदेत्यादिमत्त्वाच्च सत्त्वरजस्तम्भेगुणकं भवति । तत्र सत्त्वात् क्रिञ्चिदूने
रजस्तमसौ मिथः समे यदा भवतः, तदा सत्त्वात् तद्व्यानाभिमुखं
भूत्वा तमसा तत्पिधाने सति, रजसैश्वर्यं कामयमानं विषयप्रियं
भवति वित्तिप्रसम् । यदा तु तमःप्रधानं वित्तं मूढं तदाऽश्रेयोऽधर्मा-
ज्ञानावेराग्यानेश्वर्यमुपगच्छति । अज्ञानमत्र अमो निद्रा च । रजः-
प्रधानं तु क्षिप्तम् । इमे क्षिप्तमूढे सर्वसाधारणे भवतः ॥

(b) विषयसुखभोगात् कामानलो बह्वन्ते । वृद्धो सत्यां काम्या-
लामे दुःखमवश्यं भावि । लामेऽपि कुतश्चिद्भोगसंकोचे दुःखम् ।
संकोचको द्वेषः । ततः कामद्वेषाभ्यां पापोपचयादुःखम् । असंकोचे
व्याधिः पापञ्च । ततो दुःखम् । एवं भोगस्य परिणामदुःखता ।
तथा सुखभोगकाले प्रियनाशभीत्या दुःखं वर्तते । नाशको द्वेषाच्च
तापोऽस्ति । इति तापदुःखता भोगस्य । तथा सुखभोगनाशे संस्कारो
भवति, तेन स्मृत्या रागे सति पुन्यपुण्योपचयात् सुखदुःखभोगः पुनः
संस्कार, ज्वनन्ता दुःखवन्ततिः । यदि भोगनाशे संस्कारो न स्यात्
तदा न दुःखवन्ततिः । भवत्येव तु संस्कार इति संस्कारदुःखता ।

(c) वासना द्विविधा—मलिना, शुद्धा च । शुद्धा देवो
सम्पत् शास्त्रसंस्कारप्राप्त्यात् तत्त्वज्ञानसाधनत्वेनैकरूपेव । मलिना

तु त्रिविधा—लोकशासना, शास्त्रवाचना, देहवाचना च ।
 सर्वे जना यथा न निन्दन्ति तथेवाचरिष्यामि इत्यशक्यार्थाभिनिवेश-
 एव लोकशासना । तस्याश्च 'को लोकमाराधयितुं समर्थ' इति
 न्यायेन सम्पादयितुमशक्यत्वात् पुरुषार्थानुपयोगित्वाच्च मलिनत्वम् ।
 शास्त्रवाचना तु त्रिविधा— पाठवचनं, बहुशास्त्रवचनम्, अनु-
 ष्ठानवचनञ्चेति । . . मलिनत्वञ्चास्याः क्लेशवद्वत्त्वात् पुरुषार्था-
 नुपयोगित्वाद्वर्पणेतुत्वाज्जन्महेतुत्वाच्च । देहवाचनापि त्रिविधा—
 आत्मभ्रान्तिः गुणाधानभ्रान्तिः दोषापनयनभ्रान्तिश्चेति । . . एतस्याश्च
 सर्वप्रकाराया मलिनत्वमप्रामाणिकत्वादशक्यत्वात् पुरुषार्थानुपयोगि-
 त्वात् पुनर्जन्महेतुत्वाच्च ।

(d) "मनोऽचिरात् स्याद्विरजं जितश्वासस्य योगिनः ।

वाय्वग्निभ्यां यथा लोहं धमातं त्यजति वै मलम् ॥

यदा मनः सुविरजं योगेन रुसमाहितम् ।

काष्ठां भगवतो ध्यायेत् स्वनासग्रावलोकनः ॥

तस्मिन् लब्धपदं चित्तं सर्वविषयसंछिन्नम् ।

विलज्ज्येकत्र संयुज्यादङ्गे भगवतो मुनिः ॥

एवं हरौ भगवति प्रतिलब्धभात्रो

भक्त्या द्रवद्द्रव्य उत्प्लवकः प्रमोदात् ।

श्रोतृकण्ठप्राणकला मुहुर्दृश्यमान-

स्तस्यापि चित्तवद्विशंशनकैर्वियुङ्क्ते ॥

मुक्ताश्रयं यद्विनिर्विषयं द्विरक्तम्

निर्वर्णसृच्छति मनः सहसा यथाङ्घ्रिः ।

आत्मानमत्र पुरुषोऽव्ययधानमेक-

मन्वीक्षते प्रतिनिवृत्तगुणप्रवाहः ॥"

SANSKRIT.

GROUP E.

EIGHTH PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

FIRST HALF.

Examiner—PANDIT GURUCHARAN TARKADARSANTIRTHA.

सप्तसु प्रश्नेषु पञ्चानामुत्तरं काय्यम् ।

1. वैष्णवयोः पूर्णप्रचरामानुजयोः परस्परं कस्मिन् मतभेदः 10
कुत्र वैकर्म्यं ? एवमद्वैतवादिसम्मत - कीदृशानुमानदूषणाय वैष्णवेः
का युक्तिः प्रदर्शिता ?
2. कैः कया युक्ताऽनादिसर्वज्ञोऽङ्गीकृतः ? अनङ्गीकर्तृभिस्तत्र 10
युक्तो यो दोषः प्रदर्शनीयः स विशदीकृत्य वर्ण्यताम् ।
3. अक्षपाददर्शनस्य प्राधान्ये न्यायनामत्वे च को हेतुः ? एवम- 10
क्षपादस्य कणादेन यत्र यत्र मतभेदस्तत्सर्वं सुस्पष्टं प्रदर्शयताम् ।
4. आरम्भ-परिणाम-विवर्तवादेषु को वादः कया युक्त्या केषां 10
सम्मतः ? एवमेषु कः श्रीमद्भगो रोचते ?
5. प्रामाण्याप्रामाण्यज्ञानयोर्दर्शनिकानां मतभेदा विशदं 10
प्रदर्शनीयाः ।
6. के सर्वज्ञाणिकत्ववादिनः ? तेषाञ्चान्यानं कीदृशो मतभेदः ? 10
तत्र च को हेतुः ? सर्वज्ञाणिकत्ववाद-खण्डनाय च कार्पण्यैः का
युक्तिरवलम्बनीया ?
7. चार्वाकादिसर्वदर्शनिकसम्मतं मोक्षस्य किं लक्षणं कर्तुं 10
श्रीमद्भिः शक्यते ?

SECOND HALF.

Examiner—PANDIT ASUTOSH SASTRI, M.A.

8. Translate into English :—

(a) शून्यता नभसीवात्र द्रवत्वमिव चास्मसि ।

10

ते खनेष्वाप्यभिन्नेव किलान्ति जगदादिता ॥

यद्रूपं ब्रह्म तद्रूपं जगत् क्वात्र द्वितैकते ।
 यद्रूपं व्योम तद्रूपमेवं शून्यं किलाखिलम् ॥
 एकात्मनि तते स्वच्छे चिन्मात्रे सर्व्वरूपिणि ।
 शिलापुत्तकसेनायां पाषाणत्वं इवा स्थिते ॥
 कार्यकारणवैचित्र्यं कथं सम्भवति क्व वा ।
 कथमव्योमता व्योम्नि द्वितीयावम्वान्वेत् ॥
 प्रतिभात्मैव भारूपो भाति सर्गो महाचिति ।
 पुत्रिके वोपलोत्कीर्णा तन्मयत्वात्तदात्मिका ॥

Give the purport of the above in your own words in Sanskrit.

5

(b) प्रतिभामात्रमेवाच्छं न तु ज्ञप्तेर्घटादि सत् ।

10

ज्ञानात्मिकैरप्रतिभा चक्षिरिवाखिलं जगत् ॥
 चक्षिरप्यात्मतत्त्वश्रीः परिज्ञातोपशम्यति ।
 ज्ञेयाभावे त्वनिर्वाच्या शिष्यतं शाश्वतं शिवम्
 अनवीगद्यविज्ञात्म सर्व्वं ज्ञानमिदं ततम् ।
 ज्ञानज्ञेयज्ञमिमुक्तं दृष्टन्मोर्नामिव स्थितम् ॥
 ज्ञानान्तःकरणाः स्वस्थाः शिलापुत्रककोषवत् ।
 चलन्तश्चालयन्तश्च चरूपा एव तिष्ठत ॥
 अज्ञेयज्ञत्वसद्रूपाः सदसत्साररूपिणः ।
 आकाशकोशत्रिशदो भवता भवभूमयः ॥

9. Translate into Sanskrit :—

25

Nor can it be affirmed that the Sāṅkhya proper commits itself to a positive denial of the existence of a Supreme Being, to an ignoring of what the founder of the school believed to be incapable of dialectic demonstration. As, however, the original World-evolver only evolves the world for the sake of the spectator, the soul, this is practically an admission that there can be no realization of creation without the union of Prakṛiti with Puruṣa, the personal soul. In all probability Kapila's whole idea was that every Puruṣa, though he did not himself create, had his own creation and his own created universe comprehended in his own person. It may easily be supposed that this union of Puruṣa and Prakṛiti began soon to be compared to that of male and female; and it may be conjectured that the idea of the production of the universe by the male and female principles associating together, which was symbolized by the Ardha-nārī form of Siva, and which lies at the root of the whole later mythology of India, was derived mainly from the Sāṅkhya Philosophy.

SANSKRIT.

GROUP I.

FIFTH PAPER.

Examiner—MAHAMAHOPADHYAYA DR. SATISCHANDRA VIDYA-
BHUSHAN, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

1. Give an estimate of the Rājataranginī as an historical work. 8
2. *Eūther,* 10
- Give a chronological list of the kings of Kashmir from 1000 A.D. to 1125 A.D.
- Or,*
- Describe the political condition of Kashmir during the life-time of Kalhana.
3. Write all that you know about the following :— 14
Meghavāhana, Bālāditya, and Jayāpiṇḍa.
4. Write notes on six of the following :— 12
Hammira, Jayānanda, Jonarāja, Kayya, Mihirakula, Sūryamatī, Trigarta, Toranāna, and Udbhata Bhatta.
5. Write explanatory notes on the following :— 6
Agrahāra, dinnāra, and grāma kāyastha.
6. Translate the following stanzas into English :— 15

(a) तस्य भूपतिविद्वेषग्रीष्मोष्मपरिशोषिणः ।

आप्ययं राजपुरुषा वार्त्तयापि न चक्रिरे ॥

गिरं गभोरो मुह्यति दसाभुङ्ग यावत्तदग्रगः ।

उक्तानुवादिनस्तावद्व्यक्तं प्रतिरवा इव ॥

स तु राजविमृष्टत्वशङ्किताभ्यां न विव्यधे ।

गतप्रवृद्धया प्रीतः प्राप्तया हरसेवया ॥

(b) प्रजिहीर्षुः स रोषेण विमर्षन निवारितः ।

प्रवृत्तेव प्रवृत्तेव निवृत्तं स्वममन्यत ॥

ततस्तथाविधः क्षुभ्यत् प्रकोपावेशसागरः ।

विचारवलयः तस्य बलाक्लममनीयत ॥

नमस्तस्मै ततः कोन्यो गच्छते वशितां धुरि ।
जीर्यन्ते येन पर्याप्ता ईर्ष्याविषविषूचिकाः ॥

- (c) देशान्तरागतानुभूतासां वार्तामुपलब्धवान् ।
अत एवाभवत्तस्या भूभृद्विरलितादरः ॥
वह्निप्रतिभिन्दंस्तत् स धीरो मार्गवर्त्तिभिः ।
चक्रे तदप्रवेशाय संवत्स्रं पार्ष्णिपतेः समम् ॥
ईर्ष्याभगोपयद्वाय्याः शङ्कामच्छादयन् रिपोः ।
स्वयमन्याभिगम्यत्वं करोति हि जडेो जनः ॥

7. Give the substance of the following in simple Sanskrit prose :— 5

प्रीतिस्थैर्यैरुचितवचनात्तिप्रया शोकशान्त्या
निर्याजास्त्राग्रहणगुरुभिस्तैश्च तैश्चोपचारेः ।
तस्य खेदादुपगतवतो राज्यत्रिभ्यंशदुःखं
मन्दोचक्रुः स्वभुवि सुजना भूपतेर्भूमिपालाः ॥

SECOND HALF.

8. Translate the following into idiomatic English, keeping as far as possible to the order of words in the original :— 30

(a) आलाोकयतु तावत् कल्याणाभिनिवेशी लक्ष्मीमेव प्रथमम् ।
इयं हि सुभटश्चक्रमण्डलोत्पलवनविभ्रमधमरी लक्ष्मीः क्षीरसागरात्
पारिजातपल्लवेभ्यो रागम् इन्दुशकलाङ्ग एकान्तवक्रताम् उच्चैःश्रवसश्च-
ज्ज्वलतां कालकूटान्मोहनशक्तिं मदिराया मदं कौस्तुभमखेरतिनेष्टुर्यम्
इत्येतानि सहवासपरिचयत्रशाद्विरहविनोदचिह्नानि शुद्धीत्वेवोद्गता ।
न ह्येवंविधमपरमपरिचितमिह जगति किञ्चिदस्ति यथेयमनार्या-
लब्धापि खलु दुःखेन परिपाल्यते । दृढगुणपाशबन्धाननिष्पन्नीकृतापि
नश्यति । उद्वामदर्पभटसहस्रोस्त्रासितासिलतापञ्चरविधृताप्यपक्रामति ।
मदजलदुर्दिनान्धकारगजघटितघनघटाटोपपरिपालितापि प्रपलायते ।

- (b) स्फूर्जद्दलसहस्रनिर्मितमिव प्रादुर्भवत्यग्रतो
रामस्य त्रिपुरान्तकृद्विषदां तेजोभिरिदृच्छं धनुः ।
शुण्डारः कलमेन यद्वदचले वस्तेन दोर्दण्डक-
स्तस्मिन्नाहित एव गर्जितगुणं कृष्टञ्च भग्नञ्च तत् ॥

4. Write a note on Asoka's anxiety for the prompt discharge of state duties, supporting your statements by citations from his edicts. 15
5. Give a chronology of the edicts of Asoka, stating fully your reasons in cases where such chronology is not supported by express statements in the edicts themselves. 15
6. Write a note on the dialectical varieties of the inscriptions of Asoka in different places and explain why there was such a variety in orders issued by the same Emperor. 15
7. Explain fully the systems of numerals in the inscriptions of Asoka and trace these, where possible, to older systems. 15
8. Give a summary of the Seventh Pillar edict of Asoka, and compare its teachings with those of Manusmṛiti. 15

SANSKRIT.

GROUP I.

SEVENTH PAPER.

Examiner—BABU SURENDRANATH MAJUMDAR, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Transcribe the following extracts in Devanagari, Roman or Bengali and translate them into English:— 21

(a)

अपश्यत्सुतं मया दत्तं नमो नमः
 सुतं मया दत्तं नमो नमः
 सुतं मया दत्तं नमो नमः
 सुतं मया दत्तं नमो नमः

(b)

अथ यत्सुतं मया दत्तं नमो नमः
 सुतं मया दत्तं नमो नमः
 सुतं मया दत्तं नमो नमः

2. Write notes on any six of the following:—

9

सोमयज्ञमानविष्टिकः । सदृशापराधः । सोदृक्कः । राजस्या-
नीयः । सान्धिविग्रहिकः । अक्षपटलाधिकृतः । गामागामभोजके ।
पञ्चभिस्त्रयान्तयैः संयुक्तः ॥

3. Give the substance and point out the importance of any THREE 12
of the following:—

(1) Bhitari stone pillar inscription, (2) Mandasore Sun-Temple
inscription, (3) Madhuvar copperplate inscription, (4) Deopara stone
inscription.

4. What historical facts can you glean from the Allahabad pillar 14
inscription of Samudragupta? Is this inscription posthumous?

5. Give a brief account *either* (i) of the Maitrakas of Valabhi or 9
(ii) of the Pratiharas and Gahadavālas of Kanauj.

6. Translate into English any SEVEN of the following slokas, adding 35
notes explaining historical allusions:—

(a) धारयोद्धृतया साङ्गे दधाति स्म त्रिधारताम् ।

सांपुगौनस्य यस्यासिस्त्रातुं लोकत्रयीमिव ॥

(b) यो युद्धकण्डूतिष्ठहीतमुच्चैः

शौर्योष्मसन्तोषितमापतन्तम् ।

महावराहं हरिणीचकार

माज्यप्रतापः खलु राजविहः ॥

(c) एलापुराचलगताद्भुतसन्निवेशं

यद्वीक्ष्य त्रिस्त्रिंशतिमानचलामरन्दः ।

एतत् स्वयम्भु शिवधाम न कृत्रिमे श्री-

देवदेवीति सततं बहु चर्चयन्ति ॥

(d) तस्माच्चामोघवर्षाभिषदतुलवलो येन कोपादपूर्वै-

श्चालुक्काभूषणाद्यैर्जनितरतियमः प्रीणितो दिङ्मवल्लगाम् ।

वैरिज्जगदादरान्तर्बहिरुपरितले यन्न लब्ध्यावकाशं

तोयश्याजाद्विशुद्धं यश इव निहितं तज्जगत्तुङ्गसम्भो ॥

(e) स्थितिचलितसकलभूभृत्-पक्षच्छेदाभिमुक्तभुजवज्रः ।

अनिमिषदर्शनयोग्या यः सत्यमिहेन्द्रराज इति ॥

(f) स्फुरन्मधूखैरसिद्धीपिकाशते-

व्युदस्य मातङ्गतमिच्छसज्जयम् ।

अवाप्तवान् यो रणरङ्गमन्दिरे

कटच्चरित्रीलजनापरिग्रहम् ॥

- (g) पित्रोर्वैश्वरु बभूवतुरलं यस्य स्फुरत्तेजसो
 सूर्याचन्द्रमसौ निरस्ततमसौ देशो जगच्चक्षुषी ।
 इन्द्राकोटीसमुद्रताखिलमर्हच्चक्रं महत्क्रोडया
 विष्णोरश्विराहुरूपमभवद् यच्छाशने लाञ्छनम् ॥
- (h) स्थानोरन्यत्र येन प्रणतिवृण्यतां प्रापितं नोत्तमाङ्गं
 यस्याक्षिप्तो भुजाभ्यां बहति हिमगिरिर्दुर्गोऽश्वभिमानम् ।
 नीचैस्तेनापि यस्य प्रणतिभुजदलावर्जनक्षिप्रमुद्ग्रां
 चूडापुष्पोपहारैर्मिहिरकुलनृपेणाश्वितं पादयुग्मम् ॥
- (i) राजानो युधि दुष्टवाजिन इव श्रीदेवगुप्तादयो
 कृत्वा येन कथां प्रहारविमुखाः सर्वे समं संयताः ।
 उत्खाय द्विषतो विजित्य वसुधां कृत्वा प्रजानां प्रियं
 प्राणानुडिभक्तवानरातिभवने सत्यानुरोधेन यः ॥
- (j) अपरिमितविभूतिस्कीतसामन्तसेना-
 मुकुटमणिमयूखाक्रान्तपादारविन्दः ।
 युधि पतितगजेन्द्रानीकवीभक्तभूतो
 भयविगलितहर्षो येन चाकारि हर्षः ॥

SANSKRIT.

GROUP I.

EIGHTH PAPER.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—MAHAMAHOPADHYAYA DR. SATISCHANDRA VIDYA-
 BHUSHAN, M.A., PH.D.

1. Write geographical notes on eight of the following :—
 Udyāna, Utakhanda, Hushkapura, Kin-lu-to, Bukephala, Harapa,
 Srughna, Rāmagrāma, Kāsyapapura, Mitravana, and Balabhi.

2. Answer one of the following :— 5
 (a) When did Hwen-thsang visit Kashmir, and who was the king of the country at that time ?
 (b) What geographical information is available about Haridwar from the account of Hwen-thsang ?
 3. Give a full account of three of the following kingdoms :— 9
 Kanoj, Kosāmbī, Sāketa, and Vaisālī.
 4. Writes notes on four of the following :— 6
 Pushkalāvati, Takshaśilā, Sākala, Ahicchatra, Sankisa, and Dantapura.
 5. (a) What does Hwen-thsang say about Bengal ? 4
 (b) Where was Sauvira ? 2
 6. Draw a map of Southern India indicating the position of the following places :— 8
 Vidarbha, Andhra, Kānchipura, Konkana, and Pratisthāna.

SECOND HALF.

Examiner—MAHAMAHOPADHYAYA KALIPRASANNA BHATTACHARYYA, M.A.

Translate into *idiomatic* Sanskrit any two of the following extracts :— 50

(a) This story of Śunahśepha is chiefly interesting as revealing to us three distinct elements in the early social life of India. These are represented by the royal or reigning family of the Ikshākus, by their priests or ministers belonging to several famous Brāhmanical races, and by a third class of men, living in the forests, such as Ajigarta, and his three sons.

It is true that Ajigarta is called a Rishi, and one of his sons, a Brāhmana. But even if we accept the Aryan origin of Ajigarta, the seller and butcher of his own son, it is important to remark how great a difference there must have been between the various Aryan settlers in India.

(b) When the minister Vyāghrasena had told this story on the bank of the lake to Mrigāṅkadatta, he went on to say to him, " This wonderful tale, prince, did the hermit Kanva relate to us in the hermitage, and at the end of the tale the compassionate man said to us, to comfort us, ' So, my sons, those who endure with resolute hearts terrible misfortunes hard to struggle through, attain in this way the objects they most desire: but those others, whose energies are paralysed by loss of courage, fail. Therefore, abandon this despondency, and go on your way. Your master also, prince Mrigāṅkadatta, shall recover all his ministers, and shall long rule the earth, after having been united with Śaśāṅkavati.

(c) Thereafter, on Chandragupta's attaining manhood, Chānakya decided: ' From henceforth this individual is capable of forming and controlling an army'; so he repaired to the spot where his treasure was buried, and took possession of it, and employed it, enlisting forces from all quarters, and distributing money among them; and having thus formed a powerful army, he entrusted it to him. From that time, throwing off all disguise, and invading the inhabited parts of the country, he commenced his campaign by attacking towns and villages. In the course of their warfare, the population rose to a man, and surrounding their army vanquished them. Dispersing, they re-united in the wilderness.

PALI.

FIRST PAPER.

Examiner—MAHAMAHOPADHYAYA DR. SATISCHANDRA VIDYA-BHUSHAN, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Give, in your own Pali, a summary of either the Padakusala-mānava-jātaka or the Ghatajātaka 8

2. (a) "Sumuttike sunuttikā sādhu muttika'mhi musalassa ahiriko me chuttakam vā pi ukkhalikā me daliddabhāvā." 7

Is the Commentator's explanation of this couplet right? Suggest an improvement in the reading and translate the couplet so improved, into English.

(b) "Dīgho bālānañ saṁsāro punappunam ca rodātam anamataggo pitu maraṇe bhātu vadhe attano ca vadhe." 7

Translate into English and discuss in some detail the meaning and the formation of "anamataggo," giving authorities and citing parallel passages for every suggestion.

3. Translate into English any two of the following, adding notes on the italicized words:— 10

(a) Yo Sītavanam upāgābhikkhu eko santusito samāhitatto vijitāvi *apetalomahaṁso* rakkaṁ kāyagatāsatim dhitimā. Svāgatam *nāpaṭṭam* nayidam dummantitam mama. samvibhantesu dhammesu yaṁ seṭṭhaṁ tad upāgamim.

(b) Paññābali silavatūpapanno samāhito jhānarato satimā yada¹thiyam bhojanam bhuñjamāno kaṭketha kalam idha vitarāgo.

Gāme me vasati kāyo araṇṇam me gato mano *semānako* pi gacchāmi; ñatthi saṅgo vijānataṁ.

(c) Yathāpi bhadlo ājaṇṇo *naṅgalāvattani* sikhī gacchati appakasirena evaṁ rattindivā mama gacchanti appakasirena sukho laddhe nirāmise. *Anuvassiko* pabbajito passa dhammasudhammatam. *Ussō* vijjā anuppattā kataṁ Buddhassa sāsanaṁ.

4. Quote passages from the Ther *zīthā* which recall the following, occurring in Rock Edict IV. of King Piyadasi:— 6
"Dhammacarane pi na bhavati asilasa."

5. Write biographical notes on:— 4

(a) any two: Kāludayī, Saṁkicca, Mahākappina, Upasena.

(a) any two: Khemā, Isidāsī, Cāpā, Rohini.

6. State in your own Pali the substance of either the Sāmaññaphala-sutta or the Mahāsatipatṭhāna-sutta 8

7. Discuss fully:— *Either,* 9

The history of the settlement of the Canon at the Council of Rājagaha.

Or,

The various modes of division of the Canon.

8. Translate into English *any two* of the following, adding full 10 notes on the formation of the words italicized :—

- (a) Yathā vā pan' eke bhonto samanabrāhmaṇā
saddhādeyyāni bhojanāni bhuñjitvā te evarūpaṃ
uccāsayanamahāsayanam anuyuttā viharanti
—soyyathidam āsandiṃ pallankaṃ gonakaṃ
cittakaṃ paṭikaṃ patalikaṃ tūlikaṃ vikatikaṃ
uddulomim ekantalomim kaṭṭhissaṃ koseyyaṃ
kuttakaṃ hatthaththaram assattharaṃ rathattharam
ajinappaveṇiṃ kadaliṃigapavarapaccattharaṇaṃ
sauttaracchedam ubhatolohitakūpadhānaṃ—iti vā
iti evarūpā uccāsayanamahāsayanā
paṭivirato Samaṇo Gotamo.
- (b) Athhi kho bho eso attā yaṃ tvaṃ vadesi.
N'eso n'atthi vadāmi. Na ca kho bho ayaṃ
attā ettāvataṃ paramaditṭhadhammanibbānappatto
hoti. Tvaṃ kissa hetu ? Yā eva tattha vitakkitiṃ
vicāritam etena etaṃ olārikaṃ akkhāyati.
Yato kho bho ayaṃ attā vitakkaviciārānaṃ vūpasamā.
ajjhataṃ sampasādanāṃ cetaso *ekodibhāram* avitakkaṃ
avicāraṃ samādhijaṃ pītisukhaṃ dutiyajjhānaṃ
upasaṃpajja viharati, ettāvataṃ kho bho ayaṃ attā
paramaditṭhadhammanibbānaṃ patto hoti.
- (c) Atha kho Bhagavā yena Gaṅgā nadī tena upasaṃkama.
Tena kho pana samayena Gaṅgā nadī pūrā hoti
samatittikā kākaṇṭhā. App' ekacce manussa nāvaṃ
pariyesanti app' ekacce ulumpaṃ pariyesanti app'
ekacce kullaṃ bandhanti apparāparaṃ gantukāma. Atha
kho
Bhagavā seyyathā pi nāma balavā puriso sammiñjitaṃ
va bāhaṃ pasāreyya pasāritaṃ va bāhaṃ sammiñjeyya,
evam evaṃ Gaṅgāya nadiyā orima-tire antarahito
pārimatire paccutṭhāsi saddhhiṃ bhikkhusaṃghena.
9. Discuss the date of the first arrangement of the Dhammapada 8
10. "Asajjhāyamaḷā mantā, anuṭṭhānamalā gharā 8
malāṃ vaṇṇassa kosajjam, pamādo rakkhato malāṃ."

What glimpse into ancient Indian society does this couplet afford ?

Or,

How would you reconcile the conflicting ideas about *iddhi*, running through the following verses ?

Hamsādiccapathe yanti ākāse yanti iddhiyā
niyanti dhīrā lokamhā jetvā Māraṃ savāhanaṃ.

And

Ākāse ca padaṃ n'atthi samaṇo n'atthi bāhire
papañcābhiraṭṭā pajā nippapañcā Tathāgatā.

11. Elucidate according to the Aṅguttara Nikāya :— 6

- (a) Nirāsa-puggala, Āsaṃsa—P., vigatāsa—P.
(b) andha-puggala, ekkacakkhu—P., dvicakkhu—P.

12. Make sentences in Pali to illustrate the idiomatic uses of :—

- (a) Yo ce, Yā ce and Yaṇ ce. 3
(b) sūro hutvā yo vā so vā, 6
kacchaṃ bandhitvā, kotthakaṃ virajjhati,
matthakaṃ pāpetuṃ, āghātaṃ bandhitvā.

PALI.

SECOND PAPER.

Examiner—BABU REBATINATH CHATTERJEE. M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. What is the exact meaning of the title “Dhammasaṅgani”? 7
Was this book rehearsed at the First Buddhist Council? Give reasons for your answer.

2. Elucidate eight of the following terms :— 8
Kukkuccārā, nīvaranā, appamāṇā, parittārammaṇā, avyākata, appanīhitā, avikkhepo, vipassanā, kāyakammaññatā and ogho.

3. Write explanatory notes on the following passage :— 12
Tasmim kho pana samaye cattāro khandhā honti, dvāyatanāni honti, dve dhātuyo honti, tayo āhārā honti, atthindriyāni honti, pañcaṅgikāṃ jhānaṃ hoti, pañcaṅgiko maggo hoti, satta balāni honti, tayo, hetū honti, eko phasso hoti, ekā vedanā hoti, ekaṃ cittaṃ hoti, eko vedanākkhandho hoti, eko saññākkhandho hoti, eko saṅkhāra-kkhandho hoti, eko viññānakkhandho hoti, ekaṃ manāyatanaṃ hoti, ekaṃ manindriyaṃ hoti, ekā manoviññānadhātu hoti, ekaṃ dhammāyatanaṃ hoti, ekā dhammadhātu hoti, ye vā pana tasmim samaye aññe pi atthi paṭiccasamuppannā arūpino dhammā—ime dhammā kusalā.

4. Translate the following passages into English :— 15
(a) Yaṃ sotāṃ catunnaṃ mahābhūtānaṃ upādāya pasādo attabhā-vapariyāpanno anidassano sappatigho—yena sotena anidassanena sapatighena saddaṃ anidassanaṃ sappatighaṃ suṇi vā suṇāti vā suṇissati vā suṇe vā—sotāṃ petāṃ sotāyatanaṃ petāṃ sotadhātu pesā sotindriyaṃ petāṃ loko peso dvārā pesā samuddo peso paṇḍaraṃ petāṃ khettaṃ petāṃ vatthuraṃ petāṃ orimaṇaṃ tīraṃ suṇño gāmo peso—idaṃ taṃ rūpaṃ sotāyatanaṃ.

(b) Dukkhe aññānaṃ dukkhasamudayo aññānaṃ dukkhanirodhe aññānaṃ dukkhanirodhagāminiyā paṭipadāya aññānaṃ pubbante aññānaṃ aparante aññānaṃ pubbantāparante aññānaṃ idappaccayatā paṭiccasamuppannesu dhammesu aññānaṃ—yaṃ evarūpaṃ aññānaṃ adassanaṃ anabhisamayo ananubodho asambodho appativedho asaṅgāhanā apariyogāhanā asampekkhanā apaccavekkhanā apaccakkhakammaṃ—dummejjhaṃ balyaṃ asampajāññaṃ moho pamoho sammoho avijjā avijjogho avijjāyogo avijjānusayo avijjā-pariyuṭṭhānaṃ avijjālaṅgī moho akusalamūlaṃ—ayaṃ vuccati moho.

5. Who is the author of Atthasālini? Does he say anything 6
about the composition of this work?

6. Explain four of the following :— 8
Upekkhāsati-parisuddhi, adandhanatā, avitthanatā, cattaro obhāsā, catubhūmakavedanā and kosajjaṃ.

7. Translate the following into English :— 12
(a) Sampajānamusāvādo kiṃ kiriyato samuṭṭhāti; udāhu akiriyato ti jñānanto ‘kiriyato ti’ vakkhati. Tato vattabbo : Anāvika-

ranto kataram kiriyam karotiti? Addhā kiriyam apassanto vighātam āpajjissati. Tato imassa suttassa atthena saññāpetabbo. Ayam h'ettha attho. Yvāyam sampajānamusāvādo hotīti vutto so āpattito kim hotīti katarūpatti hotīti attho. Dukkaṭṭāpatti hoti sā ca kho na musāvāda lakkhaṇena. Bhagavato pana vacanena vacīdvāre akiriya-samutthānā āpatti hotīti vedītabbo.

(b) Āharitum pi vatteyya desanāvārena pana phasso va pathamaṁ vutto ti vedītabbo. Yathā c'ettha evaṁ sesadhammesu pi pubbā-parakkamo nāma pariyesitabbo. Seyyath'idam phusatīti phasso, svāyam phussanalakkhaṇo, saṅghattanaraso. sannipātapaccupatthāno āpāthavisayapadattāno. Ayam hi arūpa dhammo pi samāno ārammaṇesu phusanākāren'eva pavattatīti phusanalakkhaṇo.

8. What is the meaning of the title 'Netti-pakarāṇa'? Who is the author of this work? Write all that you know about him. 8

9. Explain eight of the following:—
Adhiṭṭhāno. pārikkhāro, disālocanaṁ. ankuso. otaraṇo, aññātāv-indriyaṁ. catubyūha-hāro, vibhattihāro, āvatta-hāra-sampāto and samāpatti. 12

10. Translate the following into English, with notes where necessary:— 12

(a) Tattha ye phassapañcamakā dhammā, idaṁ nāmaṁ, yāni pañcindriyāni rūpāni, idaṁ rūpaṁ, tadubhayaṁ nāma-rūpaṁ viññāṇa-sampayuttaṁ. Tassa nirodhaṁ Bhagavantaṁ pucchanto āyasmā Ajito Pārāyane evaṁ āha: Pañña c'eva satī ca nāmarūpañca mārīsa | etaṁ me puṭṭho pabrūhi katth'etaṁ uparujjatīti ||

(b) Yato ca bhikkhave no ca ceteti no ca anuseti ārammaṇaṁ etaṁ na hoti viññāṇassa ṭhitiyā. Ārammaṇe asati patitṭhā viññāṇassa na hoti. Tasmim apatitṭhite viññāṇe avirūlhe āyati punabbhavā-bhinibbatti na hoti. Āyati punabbhavābhinibbattiyā asati āyati jātī—jarā—maraṇa—soka—parideva—dukkhaḍomanassūpāyāsā nirujjhanti.

(c) Tattha yaṁ nekkhamasitaṁ domaṇassaṁ kudassu nāmāhaṁ taṁ āyatanam sacchikatvā upasampajja viharissam, yaṁ ariyā san-taṁ āyatanam sacchikatvā upasampajja viharantīti, tassa uppajjati pihā pihāpaccayā domaṇassaṁ, ayaṁ taṇhā kusālā.

PALI.

THIRD PAPER.

Examiner—MAHAMAHOPADHYAYA DR. SATISCHANDRA VIDYA-BHUŠAN, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

PALI GRAMMAR.

1. When and where did Kaccāyana the grammarian flourish? 4
2. (a) Define three of the following terms:—Rassā, niggaḥitaṁ, gha, sabbadhātuka and āgamā. 3

- (b) Frame sandhi in three of the following :— 3
vi-aggam; du-layanam; idha-aham; pati-āharati; and etam-attham.
- (c) Give the comparative and superlative forms of three of the following :— 3
vuddha, antika, appa, guṇavanta, and bālha.
3. (a) Decline three of the following :— 6
'Ratti' in the instrumental case; 'eta' in the dative case; 'go' in the ablative case; 'sayambhū' in the genitive case; and 'ubha' in the locative case.
- (b) Conjugate the following :— 6
'Dhā' in the present tense (vattamānā); 'gam' in the preterite (parokkhā); and 'disa' in the aorist (ajjatani).
- (c) Expound the samāsas in the following :— 6
Amita-bala-parakkama-ppatto; bahu-kattuko; and adhikumāri.
- (d) Derive four of the following :— 4
Sāmaṇera, katham, vemānika, venateyya, puttīyati, jigacchati, and viññu.
4. Translate, with examples, three of the following :— 9
(a) Sarā pakati byañjane.
(b) Kvaci paṭi patissa.
(c) Sabbanāmaṇam namhi ca.
(d) Harassa gīm se.
(e) Rahādito no na.
5. Write grammatical notes on four of the following :— 6
(a) Alam me Buddhho.
(b) Titthiyā samaṇānam issayanti.
(c) Gottena Gotamo Nātho.
(d) Manussānam khattiyo sūratamo.
(e) Nānasmiṃ pasidito.

SANSKRIT GRAMMAR.

6. (a) Explain the following terms :— 3
घुट्, अघोष and पङ् ।
- (b) Cite with examples the principal rules for the use of the cerebral ण । 3
- (c) Give the feminine forms of the following :— 3
सुदत्त, पाचक and गुह ।
7. (a) Decline three of the following in the objective, ablative and locative cases, singular number only :— 6
पूर्व, बधु, दिव्, तिर्यच् and उरा ।
- (b) Conjugate three of the following :— 6
कृ in लङ्, आस् in लट्, ज्ञास् in लोट्, स्मृ in लिट्, and वच् in शुङ् ।
- (c) Derive the following :—
नाय, भास्वान् and पट्टीयान् ।

8. (a) Give three examples of each of the following *samāsas* in Sanskrit :— 6

कर्मधारय, बहुव्रीहि, and अव्ययीभाव ।

(b) Give the causative (णिजन्त) forms of two of the following 4
in लृट् third person singular number :—

श्रु, पा, and जन् ।

(c) Give the desiderative (सन्क्त्) forms of two of the following :— 4

कृ, दा, and हन् ।

9. Translate the following *sūtras* into English :— 6

(a) सान्तमहतीर्नोपधायाः ।

सान्तमहन् इत्येतयोर्नकारस्योपधाया दीर्घो भवति ।

(b) एतस्य चान्वादेशे द्वितीयायां चैन ।

एतस्येदमश्च टोषोर्विभक्तयोर्द्वितीयां च कथितस्यवानुक्तयनविषये
एनादेशो भवति ।

10. Write grammatical notes on four of the following :— 6

(a) यवेभ्यो गां निषेधनि ।

(b) गोपः गां दोषिध पयः ।

(c) चर्मणि द्वीपिनं हन्ति ।

(d) ग्रामाय गच्छति ॥

(e) अलं मल्लो मल्लाय ।

(f) मातुः स्मरति ।

PALI.

FOURTH PAPER.

Examiner—BABU SURENDRANATH MAJUMDAR, M.A.

*Candidates are required to give their answers in their own words
as far as practicable,*

The figures in the margin indicate full marks.

Attempt questions 7, 8, 9, and any FIVE of the first six.

1. What do you know of Kṣemendra and of his important works ? 8
2. Point out the chief excellences of the style of Aśvaghoṣa and 8
illustrate your remarks with quotations.

- (n) इति ब्रुवाणं ललनानभिज्ञं
 मृगस्वभावं तमवेत्य बाला ।
 सत्सद्य लज्जामत्रिषङ्कमाना
 निर्यन्तलीलाभरणा बभूव ॥

C.

- (o) अस्मिन् पुरे पुरुषेष्टिकदारकाश्च
 देवाश्च नन्दनगताः सहिता रमन्ताम् ।
 न च राजदण्डभया न तथा कुदण्डा
 नोत्पीडना नापि च तर्जनाङ्गना वा ॥
- (p) अमरपुरगतान् अप्सराणां
 रूप मनोरम दृष्ट्वा बोधिसत्त्वे ।
 मतिरियमभवत् तदा हि तासां
 प्रमदं नु कीदृशं बोधिसत्त्वमाता ॥
- (q) ब्रह्मशक्रलोकपालाः पूजनाय नायकम् ।
 त्रीणि काल आगमिन्व बोधिसत्त्वश्रान्तिकम् ॥
 वन्दयित्व पूजयित्व धर्मञ्च शृणुते वरम् ।
 प्रदक्षिणं करित्व सर्वं गच्छन्ति यथागताः ॥
- (r) सो च नरवरेन्द्रो हृष्टचित्तो भवित्ता
 मृहरतुनु प्रविष्टो हृष्टिकानेवमाह ।
 यस्य ब्रह्मनापो या च मे प्रीतिकामा
 सा हि कुरुत आज्ञां मण्डयित्वात्मभावम् ॥
- (s) मुकुटञ्च खड्गं तथ पादुकं क्रीडयित्वा
 कृत्वा दशाङ्गुलिं शिरो अभिवन्दते तम् ।
 साधू सुभूतत्रचना ऋषयो महात्मा
 व्यक्तं कुमार अभिनिष्क्रमि बोधिहेतोः ॥
- (t) अहु तूर्य्यं सहस्रप्रवादिनैः-
 रप्सरशतसहस्रालङ्कृतैः ।
 लोभयित्वसु नेष्टि पुरोत्तमं
 कामरतिं हि करोमि वशे भवत् ॥

- (u) प्रेक्षसि ताव इमा मरुकन्य सुखङ्कृतिका-
स्तव कारण खञ्जित भूषित आगतिकाः ।
को रूपमिमं समवेक्ष्य न रक्षति रागरतो
अपि ऊर्जरकाष्ठ वा शोधितजीवितकः ॥

8. Rewrite in classical Sanskrit any two of C (p), (s), (u). 5

9. Give the substance of any four of the following slokas :— 10

- (a) ज्ञाने मोहेन क्षमा शक्तौ त्यागे स्नाघाविपर्ययः ।
गुणा गुणानुबन्धित्वात् तस्य सप्रसवा इव ॥

- (b) अनाकृष्टस्य विषयेर्विद्यानां पारदृष्टनः ।
तस्य धर्मेरतेरासीद् दृढत्वं जरसा विना ॥

- (c) स न्यस्तचिह्नमपि राजलक्ष्मीं
तेजोविशेषानुमितां दधानः ।
आसीदनाविष्कृतदानवारि-
रन्तर्मदावस्थ इव द्विपेन्द्रः ॥

- (d) क्रुध्यन् कुब्धं धक्ष्यति विप्रवर्जि-
र्यास्यन् सुतस्तप्स्यति मां समन्यम् ।
इत्थं नृपः पूर्वमबालुलोचे
ततोऽनुजज्ञे गमनं सुतस्य ॥

- (e) न तज्जलं यन्न सुचारुपङ्कजं
न पङ्कजं तद् यदलीनघटपदम् ।
न घटपदोऽसौ न जुगुप्सु यत् कलं
न शुद्धितं तन्न जहार यन्मनः ॥

PALI.

FIFTH PAPER.

Examiner—BABU SURENDRANATH MAJUMDAR, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Attempt no more than EIGHT questions.

1. (a) Give examples of the change of
(1) *i* into *u*, (2) *d* into *r*, (3) *l* into *n*
in Pali and in Prakrit.
(b) Show the influence of (i) *y* in changing *a* into *i* and of (ii) *v* in changing it into *o*.
2. How are Sanskrit *r*, *ai* and *au* represented in Pali and Prakrit ?
3. Compare the declension of noun stems ending in *a* in Sanskrit, Pali and Prakrit.
4. How are the passive, causative, and infinitive formed in Pali and Prakrit ?
5. Explain philologically with examples the following Sūtra of Pali Grammar :—
ya-ra-ma-da-na-ta-ra-lā-cūḥamā.
6. Write philological notes on any four of :—
(1) āvuso, (2) bhadaṇṭe, (3) pāsāṇḍa, (4) sace, (5) bhiyyo.
7. Explain any four :—
(1) Dissimilation, (2) Metathesis, (3) Epenthesis, (4) Prosthesis, (5) Glidesounds ; and illustrate them with examples from Sanskrit languages.
8. Discuss the significance of the following technical terms of Indian phonology :—
Vivāra, Samvāra, Śvāsa, Nāda, Ghoṣa, Aghoṣa, Alpaprāṇa, Mahāprāṇa.
9. Is the science of language a physical or a historical one ?
10. What are the influences of Imitation on language ?
11. Explain the two varieties of Accents and discuss their influences on change in language
12. Distinguish between morphological and genealogical classifications of languages. To what morphological class does the Tamil language belong ? Mention the characteristics of that class.

7. Compare the language of the Dhāuli and Jaugada inscriptions of Asoka with the literary Pali and say which of them is older. 15

8. Write a short note on Asoka's attitude towards the professors of other forms of religion than his own. 15

PALI.

SEVENTH PAPER.

Examiner—BABU REBATINATH CHATTERJEE, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. What do you understand by "Jātaka" ? 10
Indicate the various characteristics of *the Jātaka* with special reference to the *Nigrodhamiya jātaka*. Mention some extant Jātaka stories older than those in the Jātaka Book and not included in the Jātaka Collection.
2. What do you understand by the phrase "Northern and Southern Buddhism" ? Discuss the chief features of both. 6
3. When was the Pali Canon closed ? Give reasons for your answer. 8
4. Trace the growth of the Sutta Nipāta. What conclusions can be drawn from it as to the manner of the growth of Indian literature ? 10
5. What light is thrown on the comparative age of Pali and Sanskrit, by the following :—the Gosinga MS., the Bower MS., the inscribed vase from the Sakiya Topo, and the inscription of Rudradāman. 10
6. Write an essay on one of the following :— 10
(1) Early Buddhism and God.
(2) Buddhism and Immortality.
7. Discuss fully the distinction between Dhamma and Abhidhamma. 10
Or,
State what Mrs. Rhys Davids says about the Quest of the Ideal.
8. Discuss the historicity of Sākyamuni 10
Or,
Give a brief sketch of the Buddhist cosmical system.
9. Write a detailed account of the Pabbajja and of the Upasampadā. 8
10. Give a short account of the Buddhist Tantra literature, and say how far it influenced Buddhist life and development. 9
11. Write a concise essay *either* on the ontology *or* on the ethics of Buddhism. 9

PALI.

EIGHTH PAPER.

Examiner—MAHAMAHOPADHYAYA HARAPRASAD SASTRI, M.A.,
C.I.E.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

Write an essay in English on one of the following subjects :— 100

(a) The state of society in Northern India as represented in the Jātaka Stories :—the political divisions of Northern India—the castes and classes into which the people were divided—the religious sects—the economic condition—the position of Brahmanas—and of the Ascetics.

(b) The state of Buddhism in the earlier centuries of the Christian era—the position of parties among Buddhists—the great leaders of thought—the condition of the Church and its influence in India and the surrounding countries.

• ARABIC.

FIRST PAPER.

Examiner—MAULVI MD. ABU TAHIR

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. (a) Translate into English :—

(١) قال ان رسول الله صلى الله عليه وسلم قال للعباس
ابن عبد المطلب حين انتهى به الى المدينة يا عباس اند
نفسك و ابن اخيك عقيل بن ابي طالب و نوفل بن الحرث
وحليفك عتبة بن عمرو بن جحدم اخا بنذي الحرث بن فهر
فانك ذو مال فقال يا رسول الله اني كنت مسلما و لكن القوم
استكروهوني فقال الله اعلم باسلامك ان يكن ما تذكر حقا فالله
يجزيك به فاما ظاهر امرك فقد كان علينا فاند نفسك فقال

العباس يا رسول الله ليس لي مال قال ابن المال الذي وضعته
بمكة حين خرجت من عند ام الفضل بنت الحرث و ليس
معكما احد ثم قلت لهما ان اصبحت في سفرتي هذه فللفضل
كذا و لعبد الله كذا لثقت كذا و لعبيد الله كذا قال و الذي بعثك
بالحق ما علم هذا غيري و غيرها و اني لاعلم انك رسول الله
فقدى العباس نفسه و ابن اخيه و حليفه *

(ب) ايها القلب لا اراك تفيق 6

طالما تعلقتك العلوق

من يكن من هوى حبيب قريبا

فانا النازح البعيد السحيق

قضى الحب بيننا فالتقينا

و كلنا الى اللقاء مشوق

(b) Analyse the last two lines of the extract (ب), using the technical terms of Arabic Grammar. 5

2. (a) Explain the following passages in Arabic:—

(أ) 4 كالبيض بالادحي يلمع في الضحى

و الحسن حسن و النعيم نعيم

حليين من در البكور كانه

فوق النحور اذ يلوح نجوم

(ب) اذا الثقي فاخركم فقولوا * هلم نعد ام ابي رغال 6

ابوكم اخبث الاء قدما * وانتم مشبهوة على مثال

عبيد الغرز اورثه بنيه * وولي عنهم اخرى الليال

٦ (ج) لم انس سلمى ولا ليالينا * بالحزن اذ عيشنا بها رعد
اذ نحن في ميعه الشباب واذ * ايامنا تاك غصه جدد
في عيشه كالفرند عذبة الشقة خصره غصنا خضد

٤ (د) ايها السائل الذي يخطب الار
ض دع الناس اجمعين وراك
وانت هذا الطويل من آل حفص
ان تخوفت عيلة او هلاك

(b) Scan any two lines of the extract (د) and name the metre. 3

(c) Give the etymology of نُفْي with the story related in the 7
Kitabul Aghani referring to Alkalabi.

3. Vocalize the following lines:— 3

بفداء بيتك و ابن مشعب حاضر
في سامر طروليل مقمر

4. Give the story of ناضى and امرؤ القيس in connection 12
with the lines given below (answer in Arabic):—

فقد طفت سبعا نقات لما قضيتها
الا ليت هذا لا على ولا ليا

5. Translate into English:— 11

ثم خرج رسول الله صلى الله عليه وسلم فحرضهم و نفل كل
امرئ ما اصاب و قال و الذي نفسي بيده لا يقاتلهم رجل اليوم
فيقتل صابرا محتسبا مقبلا غير مدبر الا ادخله الله الجنة فقال
عمير بن الحمام اخو بني سلمه و في يده تمرات ياكلها بنم بنم ما
بينني وبين ان ادخل الجنة الا ان يقتلني هؤلاء قال ثم قذف
التمرات من يده و اخذ سيفه فقاتل القوم حتى قتل و هو
يقول *

وَكُفَا إِلَى اللَّهِ بِغَيْرِ زَادٍ
 إِلَّا التَّقَىٰ وَعَمَلُ الْمَعَادِ
 وَالصَّبْرُ فِي اللَّهِ عَلَى الْجِهَادِ
 وَكُلُّ زَادٍ عُرْضَةُ النِّفَادِ
 نَيْرُ التَّقَىٰ وَالْبِرُّ وَالرِّشَادُ

6. Translate into Arabic :—

Abdush-Shams transferred the authority to his brother Hashim, a leading merchant of Mecca and a man of consequence, noted for his generosity to strangers. Hashim died about the year 510 A.C., and was succeeded by his brother Muttalib, surnamed "the generous." Muttalib died towards the end of the year 520 A.C. and was succeeded by his nephew Shaylia, better known by his surname of Abdul Muttalib, a son of Hashim.

The grandsons of Abd ud-Dar were meanwhile growing rich. Jealous of the position Hashim's family occupied in the public estimation, they were trying to grasp the entire authority, and to make themselves rulers of Mecca. On their side was ranged Ommeya, the ambitious son of Abdush-Shams. But in spite of this, the high character of Abdul Muttalib, and the veneration in which he was held by all the Koraish, enabled him to rule Mecca for nearly fifty-nine years. He was assisted in the government by the elders, who were the heads of the ten principal families.

ARABIC.

SECOND PAPER.

Examiner- MAULAVI MD. ABU TAHIR

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English :—

10

(١) سمعت مفسداً يفسد - لحى الله صعلوكاً مثلاً وهمه -
 من العيش ان يلقى لبوساً ومطعماً - فقلت انا معذي
 هذا البيت لانى قائد فى البيت اكل طيب الطعام والبس لئى
 الثياب و يفاض على بذل - ولا يفوض الى شغل - ويمتلي

و طب - و لا يدفع الى خطب - هذا و الله عيش العجائز
و الزمن العاجز *

(٢) و قد يوحش اللفظ و كله رد - و يكره الشيء و ليس من
فعله بد - هذه العرب تقول لا ابالك فى الامر اذا هم - و قاتل
الله و لا يريدون ذم - و ويل امه للمرء اذا تم - و اللالباب في
هذا الباب ان يظفر من القول الى قائله فان كان وليا فهو الولاء
و ان خشن - و ان كان عدوا فهو البلاء و ان حسن *

2. (a) Explain the following extracts in plain Arabic:—

23

(١) عبد من عباد الله اجري الله امره على الجورم و الصرود -
و انفذ بين اللعوم و الجلود - و اراة الله البسطة في اولاده -
و الرشد في اعتقاده - و مكن له فى بلاده - و له فى غده اكثر
مما في يده - و ما بقى اطيب مما لقي - و بلغني انه يضجر
من ابذاء الحاجات ترفع اليه - و القصص تقرأ لديه - و قد ضجر
ضجرة يحيى بن خالد فارى فى المنام - فيما يرى المنام - كان
قائلا يقول ان ضجرت الزحام الحاجات اليك - اضجركاك
بانقطاعها عنك *

(ب) لا يغرنك جسمهم صادق الحسن و روح
انما نحن الي الا جال نغدو و نروح
بينما انت صحيح الجسم اذا انت طريح
فاستقيها مثل ما يلقطه الديك الذبيح
هكذا الدنيا فسيحوا و وقعنا لا تصيحوا
انما الدهر عدو و لمن اصغى نصيح
و لسان الدهر بالوعظ لواعيه فصيح
نستميم الدهر و الايام منا تستميم

3. (a) Translate the following lines into English :—

14

غضى جفونك يا ربا ض فقد افنتت الحور غمزا
واقضى حياك يا ربا ح فقد كدرت الغصن هذا
خلع الربيع على الربى و ربوعها خزا و بزا
ومطارنا قد نقشت فيها يد الامطار طرزا
اسر المطى الى المدا م على جنى الورد جمزا
او ما ترى الاقطار قد اخذت من الاقطار عزا
حلت عز اليها السما فعادت البیداء فزا
و كان امطار الربيع الى ندى كفيك تعزا

(b) Scan any two of the above lines and name the metre. 3

(c) Parse last two lines of the above lines, using the technical terms of Arabic Grammar. 3

4. (a) Explain the following extracts :—

20

(أ) و اجاب الخوارزمي داعي ربه فخلا الجو للهمداني
وتصرفت به احوال جميلة و اسفار كثيرة و لم يبق من بلاد
خراسان و سجستان و غزنة بلدة الا دخلها و جني وجبي ثمرتها
و استفاد خيرها و ميرها و لا ملك و لا امير و لا وزير و لا رئيس
الا استمطر منه بنوء و سري معه في ضوء فغاز برغائب النعم
و حصل على غرائب القسم و القى عصاة بهراة و اتخذ دار
قراة و مجمع اسبابه و ما زال يرتاد للوصلة بيتا يجمع الاصل
و الفضل و الطهارة و الستر و القديم و الحديث حتى وفق
التوفيق كله و خار الله له في مصاهرة على الحسين بن محمد
الخشنامي •

(ب) خلقت كما ترى صعب الثقاف

اردید الخليفة في الخلاف

و لي جسد كواحدة المثاني
 و لي كبد كثلاثة الاثاني
 هلم الي نحيف الجسم مني
 لتنظر كيف اثار الذخاف
 الم تر ان طائشة لظاها
 نتيجة هذه التصب الضعاف

(a) Explain the underlined words of the extract (ب)

2

5. Translate into Arabic:—

25

The loss of Crete was in some measure compensated by the extermination of the Byzantine power in Sicily. They still held in the island several strong places whence they were accustomed to harass the Saracens. Ahmad bin Hasan, the viceroy, applied himself vigorously to the conquest of the cities. The army sent from Byzantine for the relief of the Greeks sustained a heavy defeat on land, and were forced to betake themselves to their ships. These ships slipped anchors and tried to escape, but were pursued, disastrously beaten, and sunk. By the end of 351 A.H. the whole island was into subjection. Sicily has never been so prosperous as under the Kalbite Ameer: mosques, colleges and schools sprang up on all sides; learning and arts were patronised, and the people prospered. The university of medicine at Palermo rivalled those of Bagdad and Cordova.

ARABIC.

THIRD PAPER.

Examiner—SHAMS-UL-ULMA ABU NASR MD. WAHEED, M.A

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English any two of the following extracts:—

35

A.

كتب عبد الحميد بن يحيى الى اهله وهو منزه مع
 مروان - اما بعد فان الله تعالى جعل الدنيا محفونة بالكرة
 و السرور فمن ساعدة الحظ فيها سكن اليها و من عضته بذابها ذمها

سأخطا عليها وشكها مستزيدا لها - وقد اذاقتنا أفوايق استحليناها
ثم جمحت بنا نافرة ورمحتنا مولية فملح عذبا و خشن ليذما
فابعدتنا عن الاوطان وفرقتنا عن الاخوان فالدار نازحة والطير
بارحة وقد كتبت و الايام تزيدنا منكم بعدا و اليكم وجدا فان تم
البلية الى اقصى مدتها يكن آخر العهد بكم و بنا و ان يلحقنا
ظفر جارح من اظفار من يليكم نرجع اليكم بذل الاسار و الذل
شرجار نسأل الله الذي يعز من يشاء ويدل من يشاء ان يسب
لنا ولكم الفة جامعة في دار أمنة تجمع سلامة الابدان
و الاديان فانه رب العالمين و ارحم الراحمين *

B.

شر العلوم ما طاب للمراء و شر العلماء من يطرق باب
الامراء فيفتيهم بالرزق و الحيل و يفتنهم بالزيف و الميل
و يتأول المنصوص مترخصا و يتقول تلى الله متخرصا
لقد هلك السائل و المستؤل و لعن القائل و المقول
طوبى لمن سلك لقم التقوى و لم يحمل قلم الفتوى
سيربح المتقون و يخسر المقنون و سيبصر و يبصرون بايكم
المفتون ويل للعالم يقلب الدين بين اصبعين من اصابعه
و يحرف الكلم عن مواضعه خسرت صفته لم يبتاع دنياه
بدينه و تبت يداه لم يستنجي بيمينه يستحل من الشرع
محارمه و يحل مناهمه و يطمس معالمه و يستحققر معاطمه
يعرض على العظماء سرايا براقا يحسبه سرايا رقراقا فاذا هو ال
ماله مال يستغوى الجاهل بطن محال و يسقيه من دن خال

و يرويه من شن بال عمائم عالية و جماجم خالية و احكام مله
 ضيم و اقلام كانوا ايم شيخ غير بالغ يحرك لحيه تيس سالغ
 يجادل فى الله و كان الانسان اكثر شيء جدلا و يبيع الدين
 بالدنيا بئس للظالمين بدلا *

C.

الشمس و القمر دائبان في مروضاته يبليان كل جديد
 و يقربان كل بعيد قسم ارزاقهم و احصى اثارهم و اعلمهم
 و عدد انفسهم و خائفة اعينهم و ما تخفي عدوهم من الضمير
 و مستقرهم و مستودعهم من الارحام و الظهور الى ان تنذاهي
 بسم الغيايات هو الذي اشتدت نغمته على اعدائه في سعة
 رحمته و اتسعت لاوليائه في شدة نغمته قاهر من عازيه و مدمر
 من شاقه و مذل من نوايه و غالب من عاداه و من توكل عليه
 كفاه و من سأل اعطاه و من اقضه قضاة و من شكره جزاه عباد
 الله زنوا انفسكم قبل ان توزنوا و حاسبوها من قبل ان تحاسبوا
 و تنفسوا قبل ضيق الخناق و انقادوا قبل ضيق عطف السيد
 و اعلموا انه من لم يعن على نفسه حتى يكون له منة
 و اعط و زاجر لم يكن له من غيرها زاجر و لا واعظ *

2. Translate into English :—

25

و ممن تكلم فى الاقتصاد السياسي اسطو شيخ النظر
 في جميع المسائل فقد بحث عنه في سياسته و خلاصة
 اقواله انه لا يعتقد بارتقاء تاريخي للمحادثات و اصول
 الاجتماعية لكنه لا ينكر شدة التزام جميع المباحث العائدة
 الى هيئة الاجتماع مثل الاخلاق و الاقتصاد و السياسة و اذا ابنى

من الثروة لم ينظر اليها في ذاتها نظرا بعيدا بل نظر اليها باعتبار كونها عنصرا من عناصر معيشة الجمهور و اذا اخذ في نسبة اصول اسباب الاجتماع عزاءها الى احتياجات الطبيعة البشرية ورأها العامل دون ضرورات الاقتصاد و من عيون اقواله في هذا الموضوع ان كل حاجة مملوكة هي ذات استعمالين كلاهما ملازم للانسان تلى وجه خاص احدهما طبيعي والاخر صناعي و اما افكاره فى النقد فهي قطعة من الصواب فانه يقول ان البعض يفكرون ان جمع المعادن الكريمة و احرازها هما الغاية حال كون قيمة هذه النقود اعتبارية و اذا ابطلت القوانين للتعامل بها لم يبق لها ادنى قيمة *

3. Answer any four of the following :—

40

- (a) Give the tradition of the Pre-Islamic poetry.
- (b) Compare the Hamásah of Abu Tammám with the Hamásah of Buhtari.
- (c) Describe the doctrines of Ikhwán-us-Safá.
- (d) Write brief notes on the five typical poets of the 'Abbásid period and give their characteristics.
- (e) Enumerate the original features of Mutanabbi's style.
- (f) Describe Gazzáli's work and influence.

ARABIC.

FOURTH PAPER.

Examiner—MAULAVI MD. ABU TAHIR.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

(١) بينوا اقسام الاسم العلم * 10

(٢) فسروا النخبة الآتية بالانكليزية :— 10

و ما لا يتخذ و لا يولف فيحتاج الى تمثيل بين افرادة كالطير و الوحوش و احداث الارض و غير ذلك فان العلم فيه للجنس

باسرة ليس بعضه اولى من بعض فلذا قلت ابو براتش وابن
دايه واسامه و ثعالة وابن قتره و بنت طبق فكانك قلت
الضرب الذي من شانه كيت كيت ومن هذه الاجفلس ماله
اسم جنس و اسم علم كالاسد و اسامه و الثعلب و ثعالة و ما لا
يعرف له اسم غير العلم نحو ابن مقرض و حمار قبلان *

(٣) بينوا اعراب المستثنى مع الامثلة * 10

(٤) اذكروا حروف التصديق و الايجاب و خصائصها مع الامثلة * 10

(٥) اشرحوا النخبة الآتية بالانكليزية * 10

و الكاف للتشبيه كقولك الذي كزيد اخوك و هو اسم في
نحو قوله *

* ع *

يضحكس عن كالبرد المنهم

و لا تدخل على الضمير استغناءً عنها بمثل - و قد شد نحو
قول العجاج *

* ع *

وام او عال كها او اقربا

(ب)

(a) بينوا وجوه ترجيح الاثبات على الحذف * 10

(b) ترجموا النخبة الآتية بالانكليزية و صرحوا قوله فيحتمل 10

الوجهين و تختار الاشارة لوجوه (٢) العناية بكمال التمييز كقوله -

هذا ابو الصقر فردا في محاسنه * من نسل شييان بين الضال والسلم

اما قول الفرزدق في علي بن الحسين عليهما السلام حين افكرة

هشام بن عبد الملك *

هذا الذي تعرف البطحاء وطلاته * و البيت يعرفه و الحل و الحرم
 هذا ابن خير العباد كلم * هذا التقي الذقي الطاهر العلم
 فليس قولك من هذا بضئ * العرب يعرف من انكثت والعجم
 فيحتمل الوجبين *

(c) بينوا الامور التي يختار تعريف المسند اليه بالاضافة
 لاجلها *

(d) ترجموا النخبة الآتية بالانكليزية : — 10

ان فصحاء العرب كانوا يتعجبون من بلاغة انقوان ويحركون
 رؤسهم و قد كانوا يرقصون عند سماع قوله تعالى : يا ارض ابلي
 و يا سماء اقلعي و غيض الماء و قضي الامر و استوت على
 الجودي - و حكى ان بعض الارباب لما سمع قوله فاصدع بما تومر
 سجد و قال سجدت بفصاحة هذ الكلام *

(e) انقلوا النخبة الآتية الى الانكليزية و علّقوا حيث دعت
 الضرورة : — 10

و الارتباطات الخياليات بالاسباب الخارجية الاتفاقية مثل صناعة
 خاصة او عرف عام فيتفاوت بالامم و ليست مضبطة كالارتباط
 العقلي و الوهمي بل كثير اما تقارن صورة صورة في خيال ارباب
 صناعة خاصة او اهل عرف عام لكون صفاتهم او عرفهم جامعا بينهما
 و لا تقارنها في خيال اصحاب صناعة اخرى او اهل عرف عام اخر
 كالشوب يقارن الدن و العفص في خيال الصباغ دون الخياط
 و التمر قد يقارن الجراد في خيال العرب دون الهند *

ARABIC.

FIFTH PAPER.

Examiner—SHAMS-UL-ULAMA VILAYAT HOSSAIN.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

اكتبوا الاجوبة كلها باللغات العربية و التراكيب النحوية اكتب
سوال (1) او (ب) :—

فسروا هذا الكلام الرباني كما فسر الزمخشري *

(1) بيان عربي مبين وكلام رصين متين - اَوْفَيْتُكُمْ بِخَيْرِ 25
مِنْ ذِكْرِكُمْ لِلَّذِينَ اتَّقَوْا عِندَ رَبِّكُمْ جَنَّاتٌ تَجْرِي مِنْ تَحْتِهَا الْأَنْهَارُ
خَالِدِينَ فِيهَا وَأَزْوَاجٌ مُطَهَّرَةٌ وَرِضْوَانٌ مِنَ اللَّهِ وَاللَّهُ بِصِيرٍ بِالْعِبَادِ
الَّذِي يَقُولُونَ رَبَّنَا آتِنَا أَمْنًا فَاغْفِرْ لَنَا ذُنُوبَنَا وَقِنَا عَذَابَ النَّارِ -
الصَّابِرِينَ وَالصَّادِقِينَ وَالْعِاقِلِينَ وَالْمُنْفِقِينَ - وَالْمُسْتَغْفِرِينَ
بِالْإِسْكَارِ - شَهِدَ اللَّهُ أَنَّهُ لَا إِلَهَ إِلَّا هُوَ وَالْمَلَائِكَةُ وَأُولُو الْعِلْمِ قَائِمًا
بِالْقِسْطِ لَا إِلَهَ إِلَّا هُوَ الْعَزِيزُ الْحَكِيمُ *

اشرح هذا السؤال مقرونا بالتحقيق و ليكن بيانك مخلوطا
بالتدقيق :-

(ب) سارعوا الى مغفرة من ربكم وجنة عرضها السموات
والارض ابي عرضها عرض السموات والارض كقوله عرضها كعرض
السماء والارض والمراد وصفها بالسعة والبسطة فشبهت
بأوسع ما علمه الناس من خلقه وبسطه اعدت للمتقين الذين
يففون في السراء والضراء في حال الرخاء واليسر وحال
الضيقة والعسر لا يخلون بان يففوا في كلتا الحالتين ما قدروا

عليه من كثير او قليل او في جميع الاحوال لانها لا تغلو من حال مسرة و مضرة لا تمنعهم حال فرح و سرور و لا حال محنة و بلاء من المعروف و سواء عليهم كان الواحد منهم في عرس او في حبس فانه لا يدع الاحسان و الكاظمين الغيظ كظم القربة اذا ملأها و شد فاهها و كظم البعير اذا لم يجتر و منه كظم الغيظ و هو ان يمسك على ما في نفسه بالصبر و لا يظهر له اثر و العاقلين عن الذئب اذا جنى عليهم احد لم يؤاخذه و الله يحب المحسنين يجوز ان تكون اللام للجنس فيتناول كل محسن و يدخل تحته هؤلاء المذكورين و ان يكون للعبد فيكون اشارة الى هؤلاء *

اشرح هذا السؤال، مقرونا بالتحقيق و ليكن بيانك مخلوطا

- 16 (ج) ما تقول في قوله تعالى الذين يقولون الآية هل وقع هذا الكلام في محل الرفع او النصب او الجر او احتمل كلها فبين وجه كل واحد من الاتراب الثلاث بالقاعدة النحوية - و ايضا ما تقول في كلمة الا في قوله تعالى لا اله الا هو انه للاستثناء او الصفة - و ايضا ما وجه الاقتصار على العرض دون الطول في قوله تعالى عرضها السموات و الارض - ما تركيب و الكاظمين - ثم بين ان كلمة متين هي من اية باب و ما اصلها و تعليلها و مادتها ما تصريف الامر الحاضر من هذه المادة *
- 10 (د) اظهر الحركات على هذه الآيات مع بيان المعنى و اللغات ربنا آتينا ما وعدتنا على رسلك و لا تغزنا يوم القيامة انك لا تخلف الميعاد *

أشرحوا اثنين من الاحاديث الاربعة اي اثنين شئتم بكلام عربي و لسان غير عجمي :-

(١) عن عبد الله بن مسعود قال قال رسول الله صلى الله عليه وسلم ما من حاكم يحكم بين الناس الا جاء يوم القيامة وملك آخذ بقلعه ثم يرفع راسه الى السماء فان قال الله القاه في مهواة اربعين خريفا رواه احمد وابن ماجه و البيهقي في شعب الايمان *

و عن عائشة عن رسول الله صلى الله عليه وسلم قال ليأتين على القاضي العدل يوم القيامة يتمنى انه لم يقض بين اثنين في ثمرة قط رواه احمد *

و عن ابي هريرة قال قال رسول الله صلى الله عليه وسلم ما اعطيكم و لا امضكم انا قاسم اضع حيث امرت رواه البخاري *
و عن خولة الاذينة قالت قال رسول الله صلى الله عليه وسلم ان رجلا يخوضون في مال الله بغير حق فلم الغار يوم القيامة رواه البخاري *

بينوا مضمون احد هذين الحديثين بعبارة عربية راقية و كلمت فصيحة شائقة :-

(ب) عن قتادة قال قلت لانس اكانت المصافحة في اصحاب رسول الله صلى الله عليه وسلم قال نعم رواه البخاري *

و عن ابي هريرة قال قبل رسول الله صلى الله عليه وسلم الحسن بن علي و عذرة الاقرع بن حاس فقال الاقرع ان لي عشرة من الولد ما قبلت منهم احدا فنظر اليه رسول الله

صلى الله عليه وسلم ثم قال من لا يرحم لا يرحم متفق عليه *
 ما تحقيق الالفاظ المسطورة تحتها :—

مهواة - خريف - ليأتين - يخوضون - حيث - متى يكون
 التمييز منصوبا في اسماء العدد ثم بين تعريف الحديث
 المتصل والمنقطع والمعلق والمرسل وما المراد من متفق
 عليه *

ARABIC.

SIXTH PAPER.

Examiner—SHAMS-UL-ULAMA VILAYAT HOSSAIN.

Candidates are required to give their answers in their own words
 as far as practicable.

The figures in the margin indicate full marks.

يبدؤوا مطالب سوال (١) ام سوال (ب) بلسان عربى
 بالتحقيق و كلام و سيم رشيق :—
 (١) ثم انه ليبلغ به الرياضة مبلغا ينقلب له وقته سكونة
 فيصير المخطوف مالوفا و الوميض شهابا بيضا و يصير له معرفة
 مستمرة كالنار صلبة مستمرة و يستمتع فيها بهجته فاذا انقلب
 عنذا انقلب حيران اسفا و لعله الى هذا الحد يظهر عليه ما به
 فاذا تغلغل في هذه المعرفة قل ظهوره عليه فكان هو هو غائب
 حاضرا و هو ظاهرا مقيما *

(ب) و لعله الى هذا الحد انما يتيسر له هذه المعرفة احيانا
 ثم يندرج الى ان يكون له متى شاء ثم انه ليتقدم هذه الرتبة
 فلا يتوقف امره الى مشية بل كلما لاحظ غيره و ان لم يكن

ملاحظته للاعتبار فيسندح له تعريجه عن عام الزور الى عالم الحق
مستقر به ويحتف حوله الاولون *

(ج) بين تعريف الزائد والعايد والعارف ثم بين الفرق
بين الزهد والعبادة عند العارف وغير العارف *

(د) الغرض الاصلي للعارف ما هو وما مقصوده من
العبادة *

فتوح البلدان للبلاذري

بينوا مطالب هذه العبارة من النظم والنثر بالعربي سوال
(١) ام سوال (ب) : —

(١) و اقبل قسطنطين الطائفة في اكثر من مائة الف فلول
حيثما فبلغه كثرة العرب فاجم عنها و سمعت من يذكر انه
كان مع عبد الوهاب في هذه الغزاة نصر بن مالک الخزازي
و نصر بن سعد الكاتب مولى الانصار فقال الشاعر

تكنفك نصران نصر بن مالک

و نصر بن سعد عز نصرک من نصر

وفي سنة ١٢١ اغزى محمد بن ابراهيم ملطية في جند من
اهل خراسان وعلى شرطته المسيب بن زهير فربط بها لئلا يطمع
فيها العدو فتراجع اليها من كان بافيا من اهلها *

(ب) وقالوا وجه ابو عبيدة بن الجراح وهو بمنهج خالد بن
الوليد الى فاحية مرعس واسكنها جندا فلما كان موت يزيد
ابن معاوية كثرت غارات الروم عليهم فانتقلوا عنها و صالح عبد الملك
الروم بعد موت ابيه مروان بن الحكم و طلبه الخلافة على شيعي

كان يؤديه اليهم فلما كانت سنة ٧١٤ غزا محمد بن مروان الروم *
 و انتفض الصلح ولما كانت سنة ٧٥ غزا الصائفة ايضا محمد
 ابن مروان و خرجت الروم في جمادى الاول من قبل مرعش
 فزحف اليهم المسلمون و عليهم ابان بن الوليد بن عقبة بن ابي
 معيط و معه دينار بن دينار مولى عبد الملك بن مروان و كان
 على فئسرين و كورها فاقتلوا بغمق مرعش فاقتلوا قتالا شديدا
 فمزمت الروم و اتبعهم المسلمون يقتلون و يأسرون *
 (ج) متى كان فتح قبرس في ايدي المسلمين و من كان قائدا 21
 للجيش و من كان امير المسلمين في ذلك الوقت و ما قصة
 هذه الواقعة ثم هذا الفتح وقع غزوة او صلحا بين بالتفصيل *
 ما التحقيق لهذه الالفاظ - طائيه - احجم - غزاة - انصر -
 تكفك - شرطه - رابط - تراجع *

ARABIC.

SEVENTH PAPER.

Examiner—A. H. HARLEY, ESQ.

The questions carry equal marks.

A. GENERAL.

Only FIVE questions to be answered.

1. Give an account of the parties in Medina after the arrival of the Prophet, and of the Charter of Medina and the Covenant with the Jews.
2. What charges were made against 'Uthmān, and what was the immediate cause of his assassination?
3. What were the causes which led to the rising under Abu Muslim, and to the eventual succession of the 'Abbāsides to the Caliphate?
4. Give an account of the Seljūqs and discuss the statement that they contributed almost nothing to culture.
5. Give an account of the Ayyūbids of Egypt.

6. Give a general outline of the history of Muslim Spain from its dismemberment into the states of the *Mulūku'l Tawā'if*.

7. Write a note on any *four* of the following:—

(a) Collection of the *Qur'ān* and meaning of the terms *Qur'ān*, *Saj'*, *Sūrah*; (b) the *Qarāmitah*; (c) the *Ismā'ilis*; (d) *Ikhwānu 'l-Safā*; (e) the *Ithna-'ashariyya*, and mention the names of those Imams who exercised temporal power; (f) the *Khārijites* and the meaning of the terms *Khawārij* and *Shurāt*.

B. INDIA.

Not more than two questions to be answered.

1. Give an account of any *three* of the following:—

(a) Mahmūd of Ghazni; (b) Altamsh; (c) Bahmani dynasty; (d) Significance of battle of Tālikot.

2. Give an account of Akbar's reign and mention the nature of the aid he received from Abul Fazl and Raja Todar Mall in the organisation of his empire.

3. Give a concise account of the Mughal Kingdom from Aurangzeb's time until its fall, and make particular reference to Aurangzeb's policy towards non-Moslem races, to his southern conquests, and to the rise of the Marhatta power.

ARABIC.

EIGHTH PAPER.

Examiner—SHAMS-UL-ULAMA ABU NASR MD. WAHEED, M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write an essay on *any one* of the following subjects:—

100

(1) Development of Muslim Sciences and their classification

(2) Ibn Rushd and his influence in Europe.

(3) Rationalism in Islām.

(4) Revolt against classicism and the characteristics of the new poetry under the 'Abbāsids.

PERSIAN.

FIRST PAPER.

Examiner—KHAN 'BAHADUR MAULAVI MD. IBRAHIM, B.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

1. (a) Translate four of the following into English : —

24

(i) کشت قهرش چو آمد اندر جنگ
باشه را به پشه لنگ
باز چون اسپ لطف را زین کرد
لقمه کرم را بلغ چین کرد
خود ازو نزد عقل رزین
کرم سیمین بود ملخ زرین

(ii) یکی ترک غول نو برده
مد هزاران علم نگون کرده
فرش مشتی گرسنه بنوشته
چاکرش زان یکی دونا گشته
هرکه در ملک او منی کرده
از ره راست توسنی کرده

(iii) نفس کو مر ترا چو جاندار است
بی تو در جسم توپی کار است
گرچه آن پنج شعنه بیکارند
سه وکیل از درونت بیدارند

آن نماید ره این کند تدبیر
 این شود حافظ آن کند تغیر
 آن کند هضم این کند قسمت
 آن برد ثقل و این دهد نعمت
 آن نماید ره این کند تدبیر
 این شود حافظ آن کند تغیر

- (iv) مرد معنی سخن ندارد دوست
 زانکه بود ست مغررها را پوست
 از مقلد مجوی راه صواب
 نردبان پایه کی بود مهتاب
 هرکه از علم صدق جست ببرد
 هرکه از وی دهان گوید ببرد

- (v) اجل آمد کلید خانه راز
 در دین بی اجل نگردد باز
 حقه سر بمهردان اجانت
 مهره مهر فور ایمانت
 سابقه نامه بمهر آورد
 وز پی تو بختامت بسپرد
 تا ز دور زمانه خواهی زیست
 تو ندانی که اندر آنجا چیست
 سعی نامه خدای اجل
 برنگیرد مگر ز دست اجل

(b) Explain the allusions in extract (i). Answer in Persian. 7

(c) Narrate the story relating to مهتاب پایه نردبان نباشد. Ex- 4
plain the overlined words in extract (iii).

2. (a) Elucidate the following in English:— 20

(i) بالایی هفت چرخ مدور دو گوهرند
کز نور هر دو عالم وادم منورند
اندر مشیمه عدم از نطفه وجود
هر دو مصورند ولی نامصورند
پروردگان دایه قدسند در قدم
گوهرنینه گرچه باوصاف گوهرند
اندر جهان نیند هم ایشان و هم جهان
در مانینه در تن ما روح پرورند
گویند هر دو هر دو جهانند ازین قبل
در هفت کشورند نه در هفت کشورند

(ii) شبی مشک رنگ دراز و مجاور
چو زلفین میعاد هجران دلبور
کشید مطلقه سیه بر ثریا
فروشته دامنش بر گوی غبر

(iii) بنگرز روزگار چه حاصل شدت جز آنکه
با حسرت و دروغ فرو مانده حسیر
دین را طلب نکردی و دنیا ز دست شد
همچو سبوس تر نه مطیری و نه خمیر
دنیاات دور کرد ز دین این مثل تراست
کز شعر باز داشت ترا جستن شعیر

- (b) What is meant by the two Gauhars in extract (i). 5
 (c) Describe فرق in the extract (ii) and state the figure (rhet.). 5
 (d) Narrate the story of مريم in Persian. 10
 (e) What do Persian writers ordinarily mean by four mothers, seven fathers, and three children? 5

3. (a) Translate into Persian :—

The memories which peaceful country scenes call up are not of this world, nor its thoughts and hopes. Their gentle influence may purify our thoughts and bear down before it old enmity and hatred; but beneath all this there lingers a vague and half-formed consciousness of having held such feelings long before in some remote and distant time, which calls up solemn thoughts of distant times to come and bends down pride and worldliness beneath it.

(b) Thinking that she might have relapsed into one of her old alarms, and might be watching the progress of some imaginary conflagration in the distance, I went to speak to her. It was with very great surprise that I saw a man standing in her little garden. 10

PERSIAN.

SECOND PAPER.

Examiner—KHAN BAHADUR MAULAVI MD. IBRAHIM, B.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. (a) Explain in English :—

20

دوش چو سلطان چرخ تاخت بمغرب عنان
 گشت ز تیر شهاب روی هوا بر سنان
 داد بگیتی ظلام سایه خاک سیاه
 یافت ز انجم فروغ انجمن کهکشان
 گشت چو جفت بنور قبه چرخ از نجوم
 شد چو جهنم بومف دخمه ارض از دخان
 شام مشعبد نمود حقه مه را بلعب
 مهره زرین مهر کرده نهان در دهان

مجلس پری خانه شعر بزم سلیمان بین درو
 در صفاستان نگر صفهای مرغان بین درو
 کام قنینه خون نشان چون اشک داود از نشان
 مرغ مراحي جان کنان داود العنان بین درو
 گر فاسقان را از گنه در باغ رضوان نیست ره
 در روی ساقی کن نگه صد باغ رضوان بین درو
 در بت پرستانرا بجان ندهند در کعبه امان
 کوی بتان را کعبه دان زمزم خمستان بین درو
 تا بر کنار دجله دوش آن آفت جان دیده ام
 از خون کنارم دجله شد تاخود چرا آن دیده ام
 سروی ز بستان ارم شمع شبستان حرم
 رویش گلستان عجم کویش دبستان دیده ام
 بغداد جانها روی او طرار دلها موی او
 دل دل کنان در کوی او چون خود فراوان دیده ام
 باشد ببغداد اندرون طرار پنهان از فسون
 در زلف طرارش کنون بغداد پنهان دیده ام

حضرت ستر معلا دیده ام

ذات سیمرغ اشکارا دیده ام

قاف تا قافم تفاخر می رسد

کز حجاب قاف عفا دیده ام

در مدینه قدس مریم یافتم

در حظیر انس حوا دیده ام

حضرت باقی‌تس بانوی سبا
 بر سر عرش معلا دیده ام
 چشم زرقا را کشیده کحل غیب
 هم بنور غیب بینا دیده ام

(b) Scan the first verse of each of the above extracts, and state 3
 the بحر in each case.

(c) Name the seven planets هفت اختر in Arabic and Persian 5
 with their Persian titles.

(d) Give a short account of زرقا in Persian. 7

2. (a) Paraphrase the following in Persian :— 10

نیست اقلیم سخن را بهتر از من پادشا
 در جهان ملک سخن را زدن مسلم مر مرا
 مریم بکر معانی را منم روح القدس
 عالم ذکر معانی را منم فرمانروا
 شه طغان عقل را نائب منم نعم الوکیل
 نو عروس فضل را صاحب منم نعم الفتا
 درع حکمت پوشم و بی ترس گویم کاتصال
 خوان فکرت سازم و بی بخل گویم کالصال
 نکته دو شیزه من حور جنت از صفت
 خاطر آبستن ما نور عقل ست از صفا

(b) Illustrate the various uses of از 3

(c) What are the distinctive features of Khaquani's poetry ? Ac- 10
 count for his prominence as a Persian poet.

3. (a) Explain the following in English :— 13

دل می‌رود ز دستم صاحب‌دلا خدا را
 دردا که راز پنهان خواهد شد آشکارا

ده روزه مهرگردون افسانه ایست و افسون
 نیکی بجای یاران فرصت شمار یارا
 کشتی نشسته گانیم ای باد شرطه بر خیز
 باشد که باز بینم آن یار آشنا را
 در حلقه گل و مل خوش خواند دوش بلبل
 هات الصبوح هیوا یا ایها السکارا
 ای صاحب کرامت شکرانه سلامت
 روزی تفقدی کن درویش بی نوا را
 اسایش دو گیتی تفسیر این دو حرفست
 با دوستان تلافی با دشمنان مدارا
 در کوی نیکنامی ما را گذر ندادند
 گر تو نمی پسندی تغییر ده قضا را
 آئینه سکندر جام جم اس
 تا بر تو عرضه دارد احوال ملک دارا
 سرکش مشوکه چون شمع از غیرت بسوزد
 دلبر که در کف او موم است سنگ خارا
 گر مطرب حریفان این پارسی بخواند
 در رقص و حالت آرد پیران پارسا را
 آن تلموش که صوفی ام العجالیثش خواند
 اشی لغا و احلی من قبله العذارا
 هنگام تنگدستی در عیش کوش و مستی
 کاین کیمیای هستی قارون کند گدارا

حافظ بخود نپوشید این خرقه می الود

ای شیخ پاکدامن معذور دار ما را

(a) Write notes on—

4

آئینه سکندر - جام جم - خاتم جم - خرابات - سدره

* المنتهی

(c) Explain the following:—

5

فنا - بقا - توحید - ذات - صفات

4. Translate into Persian:—

(a) Glad sight, wherever new with old
Is joined through some dear home-born tie,
The life of all that we behold
Depends upon that mystery.
Vain is the glory of the sky,
The beauty vain of field and grove
Unless, while with admiring eye
We gaze, we also learn to love.

10

(b) Turn gentle Hermit of the dale
And guide my lonely way
To where yon taper cheers the vale
With hospitable ray.
For here forlorn and lost I tread
With fainting steps and slow,
Where wilds, immeasurably spread,
Seem lengthening as I go.
Forbear my son, the Hermit cries,
To tempt the dangerous gloom,
For yonder faithless phantom flies
To lure thee to thy doom.
Hae to the houseless child of want
My door is open still,
And though my portion is but scant
I give it with good will.

10

PERSIAN.

THIRD PAPER.

Examiner—KHAN BAHADUR MAULAVI MD. IBRAHIM, B.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

- عبارت ذیل را در فارسی یا انگلیسی شرح (a) ۱. 20
- دهید:—

ارسطالیس از ارقلیطس نقل میکند که چیزهای مختلف را با همدیگر التیام و تالف تام تواند بود فاما چیزهای متشاکل بهم‌دیگر مشتاق باشند و در شرح این گفته اند که چون جواهر بسیط متشاکل باشند و بیکدیگر مشتاق هراینه میان ایشان تالفی روحانی و اتحادی معنوی حاصل شود و تباین مرتفع گردد چه تباین از لوازم مادیات است و در مادیات این نوع تالف نتواند بود - و تلاقی ایشان بذرات و حقایق متصور نباشد بلکه بنهایت و سطوح تواند بود و تلاقی این بدرجه آن اتصال نرسد - و چون جوهر بسیط که نفس انسانی است از کدورات جسمانی پاک گردد و محبت لذات طبیعی ازو محو شود - بحکم مناسبت بعالم قدسی منجذب گردد و بنظر بصیرت مشاهده جمال حقیقی نماید و پروانه صفت هستی خود را در انوار قاهره تجلیات الهی محو گرداند و بمقام وحدت که نهایت مقاماتست برسد و این مرتبه حق الیقین است و صاحب این مرتبه را در تعلق ببدن و تجرد از آن زیاده فرقی نباشد *

و اینکه آنعالیجاه نوشته بود که رجال عثمانی مردم فارغ البال
 بیشغل و بیکار اند و بتانی و تامل تربیت میشوند و در مکالمات
 دولتها استادی بهم می‌رسانند راست است و فی الحقیقت
 نوکرهای ایندولت هر یک هزار کار و گرفتاری دارند و اینطور
 وسعتها و فرصتها در دولت و مملکت ایران میسر نشده لکن
 منکر این مطلب نمیتوان بود که هرکه درکار تر است پرکار تر است
 و هرکه بیکار تر است بیکاره تر - جناب اقدس الهی جریزه و کیاستی
 در خلق اینجا آفریده که از ثانی و آرام و تعلیم و تعلم آنها
 هزار بار بهتر و ما نفع تر است *

5 عدالت و محبت کدام یکی ازینها افضل است (b)

بنویسید *

5 علاج خوف مرگ چیست بفارسی بنویسید * (c)

5 اقسام عشق را با فضائل و رذائل آنها ذکر کنید * (d)

15 عبارت ذیل را بفارسی شرح دهید: — 2. (a)

گویند بسمع سلطان علاءالدین ملک الجبال رسانیدند که
 انوری ترا هجا گفته است و پای از حد خود فراتر نهاده و زبان
 بمثالب تو بر گشاده بنزدیک ملک طوطی نبشت تا آن بلبل
 بستان فصاحت را بخدومت او فرستد و لطف مجاملت درمیان
 آورد و چنان می نمود که او را بجهت تعهد و تلافی استدعا
 میکند و در ضمیر داشت که چون بروی دست یابد او را نکال
 گرداند و امیر عمید فخرالدین را از آن حال علم بود و صورت
 حال بنزدیک او نمی توانست نبشت چه از سطوت قهر سلطان

علاءالدین می اندیشید و مصادقت و دوستی باهمال رضا
نمی داد بنزدیک او نامه نبشت *

5 درمیان تشبیه و استعاره فرق چیست با قواعد
مدونه و امثله بنویسید *

13 عبارت ذیل را بفارسی شرح دهید:—

طلب ای عاشقان خوش رفتار
طرب ای شاهدان شیرین کار
دو جهان شاهدهی و ما فارغ
در قدح جرعه و ما هشیار
خیز تا ز آب روی بنشانیم
باد این خاک توده غدار
پس بچاروب لا فرو روییم
کوکب از سقف گنبد درار
تا ز خود بشنود نه از من و تو
لمن الملك واحد القهار

12 حکایت نظام الملك و عمر خیام و حسن صباح را

بفارسی بنویسید *

5. Translate into Persian:—

‘Praise,’ said the sage with a sigh, ‘is to an old man an empty sound. I have neither mother to be delighted with the reputation of her son, nor wife to partake the honours of her husband. I have outlived my friends and rivals. Youth is delighted with applause because it is considered as the earnest of some future good, and because the prospect of life is far extended: but to me who am now declining to decrepitude, there is little to be feared from the malevolence of men, and yet less to be hoped from their affection or esteem. Something they may yet take away, but they can give me nothing. My retrospect of life recalls to my view many opportunities of good neglected, much time squandered upon trifles, and more lost in idleness and

vacancy. I leave many great designs unattempted and many great attempts unfinished. My mind is burdened with no heavy crime, and therefore I compose myself to tranquillity, endeavour to abstract my thoughts from hopes and cares which though reason knows them to be vain, still try to keep their old possession of the heart—expect with serene humility that hour which nature cannot long delay, and hope to possess in a better state that happiness which I could not find and that virtue which here I have not attained.”

PERSIAN.

FOURTH PAPER.

Examiner—AGA MUHAMMAD KAZIM SHIRAZI.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. عبارت ذیل را در فارسی یا انگلیسی شرح دهید: — 16
- (قَالُوا يَا ذَا الْقُرْآنِ إِنَّ يَجُوجَ وَ مَاجُوجَ) بالهمزة وتركه اسمان
 اعجمیان لقبیلتین فلم یفصرنا (مُفْسِدُونَ فِي الْأَرْضِ) بالنصب
 و البغی عند خروجهم الینا (قَبْلَ نَجْعَلُ لَكَ خَرْجًا) جعلاً
 من المال و فی قِراءة خراجاً (عَلَيَّ أَنْ تَجْعَلَ بَيْنَنَا وَ بَيْنَهُمْ سَدًّا)
 حاجزاً فلا یصلون الینا (قَالَ مَا مَكْنِيَ) و فی قِراءة بالفونین
 من غیر ادغام (فِیهِ رَبِّي) من المال و غیره (خَيْرٌ) من خرجکم
 الذی تجعلونه لی فلا حاجة لی الیه و اجعل لکم السد تبرعاً
 (فَأَعِينُونِي بِقُوَّةٍ) لما اطلبه منکم (اجْعَلْ بَيْنَكُمْ وَ بَيْنَهُمْ رَدْمًا) حاجزاً
 حصیناً (أَتَوْنِي زَبْرًا حَدِيدًا) قطعه علی قدر الحجارة التي یدنی بها

و جعل بينهما العطب و الفهم (حَتَّى إِذَا سَاوَى بَيْنَ الصَّدَفَيْنِ)
 بضم الحرفين و فتحهما و ضم الاول و سكون الثاني اي جانبي
 الجبلين بالبذاء و وضع المفاصل و النار حول ذلك (قَالَ أَنْفَخُوا)
 فنفخوا (حَتَّى إِذَا جَعَلَهُ) اي الحديد (نَارًا) اي كالنار
 (قَالَ أَتُونِيْ أَفَرِّغْ عَلَيْهِ قَطْرًا) هو الذخاس المذاب تنازع فيه
 الفعلان و حذف من الاول الاعمال الثاني فافرغ الذخاس المذاب
 على الحديد المعمي فدخل بين زهرة فصارا شيا واحداً
 (فَمَا اسْتَطَاعُوا) اي ياجوج و ماجوج (أَنْ يَنْظُرُوا) يعلوا ظهوره
 لارتفاعه و ملاسته (وَ مَا اسْتَطَاعُوا لَهُ نَقْبًا) خرقا لصلابته و سمكه *

2. (a) ياجوج و ماجوج را چرا غير منصرف آورده اند 6

و اسباب منع صرف مع مثال بيان كنيد *

3. (b) ياجوج و ماجوج كه بوده اند حالات آنها را در فارسي 6

شرح دهيد *

5. (c) الفاظ "مكنزي" و "استطاعون" در اصل چه بوده و چگونه 5

اين صورت پيدا کرده *

6. (d) الفاظ - اعيونوني - آتونني - محمي - چه صيغه دارند 6

مع تحليل آنها بنويسيد *

10. عبارت ذيل را در فارسي سليس شرح نماييد: — 10

فرايت في بهرة الحلقة شخصاً شخت الحلقة عليه اهبة

السياحة و له رنة النياحة و هو يطبع الاسجاع بزواجر وعظه و قد احاطت به اخلاط الزمر احاطة الهالة بالقمرو الاكام بالثمر فدلغت اليه لاقتبس من فوائده و التقط بعض فوايده فسمعته يقول حين خب في مجاله و هدرت شقاشق ارتجاله ايها السادر في غلوائه السادل ثوب خيلائه الجامح في جهالاته الجانح الى خز عبلاته الام تستمر على غيك و تستمرى مرعى بغيك و حتام تتناهي في زهوك و لا تنتهي عن لهوك تبارز بمعصيتك مالک ناصيتك و تجتري بقبج سيرتك على عالم سريرتك و تتواري عن قريبك و انت بمرى رقيبك و تستخفي من مملوكك و ما تخفي خافية على مليكك *

9 (a) جمع يا مفرد شش الفاظ ذيلہ مع بيان قسم جمع 4.

آن بنويسيد:—

رنه - اسجاع - زواجر - اخلاط - هالة - اكام - شقايق -
خزعبلات - ناصيه - مملوك *

3 (b) الفاظ ”مرعى“ و ”مرای“ کدام صيغه دارند.

8 (c) ”الام“ و ”حاتم“ در اصل چه بوده - و فرق ميلان ”تتناهي“
و ”تنتهي“ چيست *

10 یکی از دو عبارت ذیل را در فارسی یا انگلیسی 5.
شرح دهید:—

A.

الحمد لله الاول قبل كل اول و الآخر بعد كل آخر و القادر
على كل شيء بغير انتقال و الخالق خلقه من غير شكل و لا

مثال و هو الفرد الواحد من غير عدد و هو الباقي بعد كل احد الى غير نهاية و لا امد له الكبرياء و العظمة و البهاء و الغزوة و السلطان و القدرة تعالى عن ان يكون له شريك في سلطانه او في وحدانية نديده او في تدبيره معين او ظهير او ان يكون له ولد او صاحبة او كفؤ احد لا تحيط به الالهام و لا تحويه الاقطار و لا تدركه الابصار و هو اللطيف الخبير احمده على آلائه و اشكره على نعمائه حمد من افردته بالحمد و شكر من رجا بالشكر منه المزيد و استعديه من القول و العمل لما يقربني منه و يرضيه و او من به ايمان مخلص له التوحيد و مفرد به التمجيد *

B.

العزاک و الجلال لکبريائک و العظمة لثنائک و الدوام لبقائک يا قديم الذات و مفيض الخيرات انت الاول لا شيء قبلک و انت الآخر لا شيء بعدک و انت الفرد لا شريك لک يا واهب العقول و جاعل النور و الظلمات منك الابتداء و الیک الافتناء و بقدرتک تكونت الاشياء و بارادتک قامت الارض و السموات افض علينا انوار معرفتک و طهر نفوسنا من کدورات معصيتک و الهمنا موجبات رحمتک و مغفرتک و وفقنا لما تحب و ترضى من الخيرات و السعادات وصلّ على ذوي الانفس الطاهرات و المعجزات و الباهرات خصوصا على سيد المرسلين و اما المتقين و قائد الغر المحجلين محمد بن عبد الله بن عبد المطلب بن هاشم افضل الصلوات و على آله و اصحابه الطيبين و الطيبات *

6. (a) تحقیق لفظ "غیر" را بیان کنید * 2
- (b) عبارت ذیل را ترکیب نمائید:— 5
- تعالی عن ان یكون له شریک فی سلطانه او فی وحدانیة ندید.
- (c) مراد از (قائد الغر المحجلین) کیان اند و معنی این عبارت چیست * 5
7. خلاصه مقدمه ثانیه معجم البلدان را در عبارت 10
- فارسی خود تحریر نمائید *

PERSIAN.

FIFTH PAPER.

Examiner—AGA MUHAMMAD KAZIM SHIRAZI.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into English:—

A.

شکر از شمار افزون حضرت خلاق بیچون بی مثل و بی
نمون را که مکنونات گوناگون و موجودات بوقلمون با هزاران شیون
و فراوان فنون از نهان خانه غیب بشهرستان شهادت بیرون آورد
شوارق صنائع ابداعی و بوارق بدائع اختراع بر دیده مبصران
کامل الانظار و صاحب نظران ذی الایده و الابصار کاشمش
فی نصف النهار هویدا و آشکار درین عالم ناسوت که بسه غیب
آن ملکوت و جبروت و لاهوتست خلقت انسان را بالوف

شرافت و صنوف شان عزت بر گزیده و این گروه معزز و محترم را بفحواى غرایى "و لقد کرمنا بنی آدم" مکرم و معظم گردانیده طبقات انبیای کرام علی نبینا و علیهم الصلوة و السلام را بمقتضای "انّی جاعل فی الارض خلیفة" برتبه خلافت نواخت و علمای نامدار و مشائخ کبار و اولیای واقف الاسرار را در هر ازمنه و اعصار نیابة عن السید الابرار بفحواى "و ابتغوا الیه الوسيلة" ذریعه هدایت اهل روزگار ساخت شان شاهان جهانرا در جلدوى حسن انتظام مهام اهل انام بلند گردانید و بقصوى مدارج جاه و اقتدار و انتهای مراتب عز و وقار رسانید *

B.

12

هر کسى را هوسى و سرورگرى در پيش
من بیچاره گرفتار هواى دل خویش

دیروز جبران هجر دیر انجام را از راهى دور پی سپار کعبه مقصود و سجود اندیش پیشگاه مسعود شدم از عمارت خارجه مفروش و یخدانی بر در و قاطر و یابوئى برهگذر دیدم دانستم بدستور مقرر نوبت سفر است و پدرود حضر بحسرت و دریغى که مزید بر آن متصور نیست مراجعت کردم و با حریف هلاک آماده مضاجعت گشتم اگر گویم دیروز و دیشب دور از دیدار عزیزت بر این غریب حسرت نصیب که مشتاقى بی حبیب است و صاحب فراشى بی طبیب چون گذشت البته مشرب عیشت که همواره از شایبه صافى باد بغبار ملامت آلوده خواهد شد و پاک روانت که آموده محاسن اخلاق است خالى از اغراق و املاق برنج دلخوری فرسوده خواهد افتاد *

مکن افسانۀ ما گوش که این مایه غم
حیف باشد که بر آن خاطر خرم گذرد

پاک یزدان خجسته وجود محمود مولی بستکان و دوالی
خستکان را مغلوب غم و مرهوب الم نخواهد *

من و دل گر فدا شویم چه غم
غرض اندر میان سلامت تست

اگرچه با قلت سن و علت جوانی آن مایه توسل و توکل
در نهاد و فقر بنیاد حضرت هست که ازین عوارض حیران و ملول
و درهم و پریشان و دژم نباشد ولی از آنجا که انس بشری
و الفت پدری است میدانم از قیاس عارضه نورچشمی آقا
بیرون نیستید بار خدا را شکر دیشب عرق ناقص کرد و امروز
صحتی کامل دارد *

2. Translate the following lines into English or render them into your own Persian, adding explanatory notes where necessary:—

A.

10

خامه چو بر موجب جفّ القلم
خشک بایستاد ازین خوش رقم
بهر دعا از لب امّ الکتاب
حرف سقاک اللّٰهش آمد خطاب
روح امین دست بآمین کشاد
چرخ برین سبکۀ پروین کشاد
گوهر آن سبکۀ بیابش فشاند
در قدم غالیه ساییش فشاند

گفت جزاک الله ازین فیض پاک
 از تو بسجاده نشینان خاک
 نقش شفا نامۀ عیسی است این
 یا رقم خامۀ مانی است این
 غنچۀ از گلبن ناز آمده
 یا گلی از گلشن راز آمده
 حرف کش دفتر فرزانیست
 تازۀ کن مایۀ دیوانگیست
 قفل کشای در کخ صفاست
 عطر فزای گل شاخ وفاست
 صبح طرب مطلع انوار اوست
 جیب ادب مخزن اسرار اوست

B.

10

اختر برج شرف کائنات
 گوهر درج صدف کائنات
 جنبش اول ز محیط قدم
 سلسلہ جنبان وجود از عدم
 کلک عنایت چو رقم ساز کرد
 از همه پیش این رقم آغاز کرد
 مطلع دیباچہ این ابجد است
 پیشترین حرف کہ در احمد است
 نقطہ وحدت چو قد افراختہ
 از پی احمد الفی ساختہ

کرده چو قطران الف مستقیم
 دائره غیب هویت دو نیم
 نیمی از آن قوس جهان قدم
 قوس دگر ممکن رو در عدم
 بر هدف انداخته از دست پاک
 زین در کمان تیر زهی شست پاک
 صدر نشین اوست درین پیشگاه
 کفت نبیا بود آنرا گواه
 بود زرخ شمع نبوت فروز
 آب ندیده گل آدم هذوز

3. Translate into English *only one* of the following :—

10

A.

ملک ز انصاف شه بهشت برین است
 دوزخیم بالله اربہشت چنیں است
 گرمی بازار دین چنانکه در اقلیم
 کفر وقایع نگار دین مبین است
 تا چه کند دادگر دگر چه ز دادش
 ملک سراسر نگار خانه چین است
 عروہ وثقی است اعتصام جهان را
 ملک مخوانش دگر که حبل متین است
 فتنه چنان شد که صبح اول عمرش
 پیش رو شام روز باز پسین است

خسرو غازي ابو الشجاع حسن شه
 کش همه چیزى بجز قران و قرین است
 آنکه یمین فلک ز یمنش یسار است
 روانکه یسار جهان ز یسرش یمین است
 آنکه ز بس ایمنی هما ره حسامش
 از پی آشوب بانایام بکین است
 همت عامش حروف مهمله نگذاشت
 فی المثل اندر کلام سین همه شین است
 وین زره رسم خط نه کز پی فرق است
 کن سه نقط برنشیب مدد سین است

B.

با این گنه امید تفضل بود گنه
 با این خطا امید ترحم بود خطا
 الا بیمن طاعت برهان حق علی
 الا بعون مدحت سلطان دین رضا
 اصل کرم ولی نعم قائد امم
 کشف درى امام هدی آیت تقا
 سطح حیات خط بقا نقطه وجود
 قطب نجات قوس صفا مرکز وفا
 نفس بسیط عقل مجرد روان صرف
 مصباح فیض راح روان روح اتقیا
 مصداق لوح معنی نون مظهر قلم
 نور ازل چراغ ابد مشعل بقا

فیض نخست صادر اول ظهور حق
 مرآت وحی رایت دین آیت هدا
 معنی باء بسمله مسند نشین کن
 مصداق نفس کامله عزلت گزین لا
 گر حکم او بجنبش غیرا دهد مثال
 در رأی او برامش گردون دهد رضا
 راند قضا پیایی کاجر است ای قدر
 گوید قدر دمام گامضا است ای قضا

4. Give the laws of the change of consonants in the Old Persian or Zind, Pahlavi and Classical Persian in the history of a word. 10

5. What is the general theory regarding the age and origin of Zind? 8

6. Write Philological notes on *any six* of the following:— 12

دیباچه - بازار - قزلباش - صاحب - گریبان - مغیلان

زردشت - تهذیب - اضطراب - سمرقند - موم یائی *

7. Discuss the nature of the phonetic laws regarding the inter-change of letters. Give examples. 10

8. Trace the origin of the personal endings or terminations of verbs in Modern Persian. 5

9. Give a few instances of words, Arabic or Persian, that have acquired a degenerated meaning or entirely a different meaning when adopted by foreigners. 5

PERSIAN.

SIXTH PAPER.

Examiner—AGA MUHAMMAD KAZIM SHIRAZI.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Translate into idiomatic Persian :—

70

A.

The scheme which has been propounded by the Board of Education for the organisation and development of Scientific and Industrial research has certainly not come a day too soon. Whether the fault has lain wholly with the Government or partly with the Government and partly with British men of science, it is a notorious fact that Great Britain has done very little in the way of linking science with industries. It is probable that scientific men have been in some measure to blame. The British scientific worker used to feel that he was deserting pure science as soon as he reached a discovery which might be of value to commerce. The State, on the other hand, while it might be willing to aid researches which were of practical use, could scarcely be expected to appreciate purely theoretical results. At length it has been recognised that this estrangement between science and industry is a barrier to progress. "It seems incontrovertible," says the Board of Education, "that if the nation is to advance or even maintain its industrial position, there must be such research as to enable us to expand and strengthen our industries so as to compete with our most highly organized rivals."

B.

The earlier ravagers were under no restraint. They carried fire and sword through the land in obedience to their primal passions. But the soldiers of the Kaiser commit outrage deliberately, and to order. Theirs is a disciplined ferocity, given vent to not under the hellish instincts which have gained momentary mastery over them, but disciplined, regulated, subject to the orders of superior authority. This is no matter of hearsay. The worst outrages in the foul black record have been explained on German official authority as being intended to strike terror into the civil population, and prevent them from acts of hostility. The master of three millions of armed men, therefore, wages war upon the women and children of an unoffending nation and pleads that this is necessary for the safety of his mighty hosts! A Government which can put forward such a defence for organised outrage upon a civil population must have lost all vestige of a moral sense.

C.

Looking backwards over the history of the world, we find men in different spheres of human activity standing out conspicuous among their fellows, and over them as pioneers or leaders in thought and

state. Foremost of all, the most conspicuous, the most revered and beloved are the great religious teachers and reformers, the expounders of morals, the definers and formulators of the laws of conduct and of the highest aspirations of the soul. Those men appeared in different nations, to different races, and at different epochs in the history of mankind. They appeared just when it seemed as if reformers were needed, when morals required resuscitation, when higher religious ideas required clarifying and restating, and the religious conscience a fresh impetus and a nobler outlook. Those men were the founders of the principal religious systems of the world.

2. Name and explain the figures in any three of the following :— 9

A.

ز قد کج کلہاں راستی مگر جوئی
وگر نہ این طمع از چرخ کج مدار مدار

B.

شرح مجموعہ گل مرغ سحر داند و بس
کہ نہ ہر کو ورقی خوابد معانی دانست

C.

ہمچو چشم توانگر ست لبش
این باب آن بلؤلؤ شہوار
آب این تیرہ آب آن روشن
این گہ گریہ آن گہ گفتار

D.

ہرگز نمیرد آنکہ دلش زندہ شد بعشق
ثبت است بر جریدہ عالم دوام ما

E.

ز مشرق سرتو آفتاب طلعت تو
اگر طلوع کند طالع ہمایونست

3. Of the following four pairs of figures, explain any three pairs, 6
illustrating the difference of each with examples.

- (A) { توریه
ایهام
- (B) { لف و نشر
جمع تفریق و تقسیم
- (C) { ایهام
ادماح
- (D) { ادماح
توجیه

4. Scan *any two* of the following lines, name the زحافات and بحور if any:—

A.

میدمد صبح و کله بسته صحاب
الصباح الصبوح یا اصحاب

B.

خیز ای غلام زین کن یکرانرا
آن برق سیر صاعقه جولانرا

C.

کفونکه میدمد از بوستان نسیم بهشت
من و شراب فرح بخش و یار حور سرشت

D.

چشم مگو یک قبیله زنگی جنگی
تیر و کمان بر گرفته از پی هیجا

5. State the rules regulating the scansion of letters pronounced . 9. but not written, and *vice versa*. Give examples.

PERSIAN.

SEVENTH PAPER.

Examiner—Z. R. ZAHID SUHRAWARDY, ESQ., M.A., B.L.

Candidates are required to give their answers in their own words as far as practicable.

Answer any FIVE questions of each of the Groups A and B.

The questions are of equal value.

GROUP A.

HISTORY OF PERSIAN LITERATURE.

1. Trace historically the early development of Persian literature as synchronising with the political growth of the Persians.
2. Enumerate the causes that led to the free admixture of Arabic with Persian as distinguished from other foreign languages, and the influence such admixture exercised on the style and character of the Persian literature of the Islamic period.
3. Sketch the literary activities of the Persians during "the period of Sanjar."
4. Where will you draw the line between the متأخرين and متقدمين among Persian poets, and why? Note some points of difference in the style and ideals of the two classes.
5. Give the life and literary works of Anvari and compare him with his contemporaries. Discuss his claim as the greatest Qasida writer in Persian.
6. When was 'ghazal' first introduced into Persian poetry? For what different purposes has this form of poetry been utilised? Illustrate your answer.

GROUP B.

MUSLIM HISTORY.

1. Describe the tenets of the sect of the Ismailias and give a short account of their political activities in Persia.
2. Narrate briefly the history of the conquest of Spain up to the establishment of the Umayyid dynasty there.
3. Sketch the career of Saladin the Great.
4. Tell all you know about Abi Wakkas, Atsiz, Abu Muslim, Shejer-ud-durr, and Shaista Khan.
5. Describe the state of Christendom at the time of the Arab conquest of Syria and Egypt, and discuss the causes that contributed to the defeat of the Romans.
6. Give a chronological summary of the reign of Akbar and the extent of the Moghul empire at the close of his reign.

PERSIAN.

EIGHTH PAPER.

Examiner—Z. R. ZAHID SUHRAWARDY, ESQ., M.A., B.L.

*Candidates are required to give their answers in their own words
as far as practicable.*

ESSAY.

Write an essay in English on *one* of the following subjects :—

(a) A historical survey, in chronological order, of the various independent states that cropped up in Persia at the decline of the Caliphate at Baghdad, up to the Mongol invasion.

(b) Jāmi as an author and mystic—his various works in Arabic and Persian, with a critical study of his Masnavis as compared with those of his predecessors.

(c) Democracy in Islam—its religious basis, its relation to the tribal system, and its history as a political institution up to the present day.

HISTORY.

FIRST PAPER.

Examiner—B. B. SEN, ESQ., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

*Answer questions 3, 4, 6 and any three of the remaining seven
questions, SIX questions altogether.*

The questions are of equal numerical value.

1. (a) To what causes do you attribute the religious revival in England in the Eighteenth Century ?

(b) Indicate the extent to which it influenced the social and political life of the English people.

2. (a) What was the constitutional position of the English king at the accession of George III ? (b) Wherein did his policy differ from that of the Stuarts ? (c) What methods did he follow to overthrow the party system of government ?

3. (a) Compare the two Pitts ; and, (b) attempt an estimate of the statesmanship of the younger Pitt, from his accession to office to the outbreak of the Revolutionary war, dwelling mainly upon (1) his struggle with the Coalition, (b) his commercial and fiscal policy, and (3) his policy towards Ireland.

4. (a) Analyse the causes of dispute between the British colonies in America and the mother country. (b) What differences of opinion do you notice among contemporary English statesmen and political writers

about the relations of the mother country with the colonies ? (c) Estimate the importance of French intervention in the American Revolution, and draw a contrast between the Treaty of Paris (1763) and that of Versailles (1783).

5. (a) Discuss the political consistency of Burke. (b) How does Lecky support his view that Burke's later political opinions were the natural outcome of his earlier ones ?

6. (a) Contrast the English and the French political ideals at the outbreak of the French Revolution, and (b) indicate the extent to which they were influenced by the teachings of Rousseau.

7. (a) What was Burke's justification for English intervention in Europe against the French Revolution ? (b) Give the substance of Goldwin Smith's criticism of Pitt's policy in declaring war against the French Republic. (c) Draw a comparison between the English Revolution of 1688 and that of the French Revolution of 1789.

8. (a) Discuss the reasons for the Continental System, the nature and the effects thereof. (b) What were the factors which helped England through her economic crisis caused by the system ? (c) How did it contribute to the downfall of Napoleon.

9. "The Spanish War was the cancer of the Empire." Illustrate this remark of Napoleon from the history of the Peninsular War, and its relation to other Napoleonic wars.

10. Discuss the merits of the system of Parliamentary Government in England under the Georges in the latter half of the Eighteenth Century.

HISTORY.

SECOND PAPER.

Examiner—R. C. MAJUMDAR, ESQ., M.A.

Six questions to be attempted, two being selected from each group.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

GROUP A.

1. "Lord Wellesley revived and proclaimed the imperial principle of political supremacy. All his views and measures pointed towards the reconstruction of another empire in India." 18

Illustrate the truth of the above remark by a reference to the policy he followed towards the Mahrattas and Tippoo as well as towards Oudh, Carnatic, and Tanjore.

2. Write a critical note on Wellesley's subsidiary system in the light of the remarks made by Owen, Sir Arthur Wellesley, and Sir Thomas Munro. 18

3. State your own views about the inherent causes of the decay and downfall of the Mahratta Confederacy from a study of Mahratta history from the death of Mahdajee Scindia to 1805 A.D. 18

GROUP B.

4. Why was Lord Wellesley's Mahratta Policy, as embodied in the Treaty of Bassein, opposed by the leading Mahratta Powers, and criticised by Lord Castlereagh and Mill? 16

5. Criticise Mill's remark that Sir John Shore "decided against the unfortunate Nabob the great question of a kingdom, upon evidence upon which a Court of English Law would not have decided against him a question of a few Pounds." 16

6. In what respects was there a difference of opinion between Lord Cornwallis and Sir John Shore regarding a settlement of land revenues in Bengal? What were the principles advanced by Lord Cornwallis in support of a settlement in perpetuity with the Zemindars? How did it affect the interests of the Zemindar and the Ryot? 16

GROUP C.

7. How far did a balance of power prevail in Southern India, when Lord Wellesley became Governor-General? Discuss the justice and necessity of the war made by him against Tippoo, and indicate the objects he had in view in overthrowing the power of Mysore. 16

8. Attempt an estimate of the character and administration of Tippoo Sultan. Write a note on his Pan-Islamism. 16

9. Describe briefly the military operations in the Mysore War of 1790-1792. Illustrate your answer by a sketch-map. 16

HISTORY.

THIRD PAPER.

Examiner—GAURANGANATH BANERJEE, ESQ., M.A., B.L.,
F R.S.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt only TWO questions from each Group.

GROUP A.

1. Indicate the extent to which the social and industrial organisation of Egypt and of Babylonia were respectively influenced by differences in their physical configuration and climatic conditions. 18

2. From what various aspects may the feudal age be considered as the classic period of Egyptian History? What new elements do you notice in the political organisation of the Egyptian kingdom at the accession of the XVIIIth Dynasty? 18

3. "No nation ever stood in direr need of a strong and practical ruler than did Egypt at the death of Amenhotep III. Yet she chanced to be ruled at this fatal crisis by a young dreamer, who, in spite 18

of unprecedented greatness in the world of ideas, was not fitted to cope with a situation demanding an aggressive man of affairs and a skilled military leader"—(*Dr. Breasted*).

Discuss this statement in the light of the events that led to the dissolution of the Empire.

GROUP B.

4. How far was Phoenicia destined by nature to be the home of a maritime people? Give some account of the culture and enterprise of the Phoenicians as well as of their system of government. To what extent was their character influenced by their national pursuits?

5. How were the Israelites organised by David and his successors into a powerful monarchical community? Account for the incapacity of the Hebrews to found an Empire; and indicate the radical differences among the Hebrew tribes, which hastened the disintegration of the kingdom.

6. Write a short narrative on the origin, history and civilisation of the Lydians, or of the Medes.

GROUP C

7. Sketch the foreign policy of Assyria under the Sargonide Dynasty, with special reference to any extant monuments that throw light upon it.

8. (a) Point out the inherent causes of corporate decay in the Assyrian System of Imperial Government.

(b) Compare the Persian theory of the Empire with the Assyrian.

(c) How far was the Persian Empire an improvement upon the Assyrian?

(d) Account for the sudden collapse of the Assyrian power.

9. Explain the historical importance of the parts played in the ancient world by any four of the following:—

(a) Zoser; (b) Hrihor; (c) Shargani-sharri; (d) Piankhi; (e) Pseudo-Smerdes; (f) Dushrata; (g) Urukagina.

HISTORY.

FOURTH PAPER.

Examiner—J. N. DAS GUPTA, ESQ., B.A. (Oxon).

Attempt no more than SIX questions.

The questions are of equal numerical value.

1. Distinguish between *merchant guilds* and *craft guilds*, and explain the importance of the latter in the development of municipal government in England.

2. Write a critical appreciation of the statesmanship of William I as seen in his dealings (a) with the church and (b) with the baronage.

Or,

Elucidate the following statement:—

The reign of Stephen was the period at which all the evils of feudalism came in England into full bearing, previous to being cut off and abolished for ever under his great successor.

3. Give some account of the administrative system of Henry II, dwelling at some length on the measures adopted by him for the efficient administration of justice.

Or,

Discuss the following statement:—

The history of England under the early kings of the House of Plantagenet unfolds and traces the growth of the constitution.

4. Give an account of the legislation of Edward I, and comment on its general trend and significance.

5. Comment on the following clauses of the *Magna Carta* :—

(a) That no scutage nor aid be imposed in our kingdom, except through the Common Council of our kingdom, except to ransom our body, and to make our eldest son a knight, and to marry our eldest daughter once; and for these there shall be paid a reasonable aid.

(b) And for holding the general Council of the kingdom concerning the assessment of aids, except in the three cases aforesaid, and for the assessing of scutages, we shall cause to be summoned the archbishops, bishops, abbots, earls, and greater barons of the realm, singly by our letters. And furthermore we shall cause to be summoned generally by our sheriffs and bailiffs, and others who hold of us in chief, for a certain day, that is to say, forty days before their meeting at least, and to a certain place; and in all letters of such summons we will declare the cause of such summons. And summons being thus made, the business of the day shall proceed on the day appointed, according to the advice of such as shall be present, although all that were summoned come not.

6. Illustrate from the reigns of Henry VII and Henry VIII the political character of the Tudor monarchy, and the foresight of the Tudor sovereigns.

7. Explain and illustrate the following:—

The reign of Charles II, though displaying some stretches of arbitrary power, and threatening a great deal more, was, in fact, the transitional state between the ancient and modern schemes of the English Constitution.

8. Discuss the constitutional points involved in any three of the following:—

(i) The case of Sir Thomas Shirley.

(ii) Bahd's case.

(iii) Godden *versus* Hales.

(iv) The impeachment of Danby.

9. Write notes on any two of the following:—

(a) That the pretended power of dispensing with laws or the execution of laws by regal authority as it hath been assumed and exercised of late is illegal. (Bill of Rights).

(b) That the commission for erecting the late Court of Commissioners for ecclesiastical causes and all other commissions and courts of like nature are illegal and pernicious. (Bill of Rights).

(c) That no person who has an office or place of profit under the king, or receives a pension from the Crown, shall be capable of sitting as a member of the House of Commons. (Act of Settlement).

(d) That after the said limitation shall take effect as aforesaid, Judges' commissions be made *quamdiu se bene gesserint*, and their salaries ascertained and established; but upon the address of both Houses of Parliament it may be lawful to remove them. (Act of Settlement).

HISTORY.

FIFTH PAPER.

Examiner—A. C. DATTA, ESQ., M.A. (Oxon).

Candidates are required to give their answers in their own words as far as practicable.

Candidates are permitted to attempt SIX questions only.

The questions are of equal value.

1. "If the Society of nations is governed by Natural Law, the atoms which compose it must be absolutely equal. Men under the sceptre of Nature are all equal and accordingly commonwealths are equal if the international state is one of Nature."

Explain the above and trace the influence of the Law of Nature on the growth and development of International Law. Criticise Grotius' conception of the law of nature.

2. What is meant by naturalization? Mention and contrast the laws of naturalization that obtain in England, France and Germany.

3. Define Extradition. Mention the conditions under which it is generally granted. What do you understand by the expression 'Political offence'?

4. Describe the assistance rendered by International Law in the suppression of Piracy and Slave-trade.

5. What is meant by the expression "Free ships, free goods"? Give a short account of the law of maritime capture as codified in the Consolato del Mare and trace its changes and development up to the present time. In this connection describe the circumstances which would justify the capture of goods belonging to a neutral subject.

6. Write an account of the law relating to reprisals and embargo. What useful purpose do they serve?

7. Mention the more important provisions relative to the laying of automatic submarine contact mines. Is the safety of neutral shipping sufficiently ensured by them?

8. Give a short account of the International Prize Court as contemplated by the twelfth Hague Convention of 1907. What are your views about it?

9. In the present war, the Germans have used asphyxiating and deleterious gases, and the French projectiles from aeroplanes.

Explain, by reference to the provisions of International Law relating thereto, how far these methods of destruction are justified.

10. What do you understand by the Doctrine of *Continuous Voyages*? Is its operation extended to the laws relating to hostile blockade and *Conditional Contraband* of war? Illustrate your answer by examples.

11. Write a short note on neutral rights relative to international passenger travel and refer to the case of the *Lusitania* (1915).

12. Write short notes on two of the following, explaining the principles illustrated in each of them:—

(1) Behring Sea Arbitration, (2) Rauscher's Case, (3) The Silesian Loan Controversy, (4) The Chesapeake, (5) The Reshitelni, and (6) The Atalanta.

HISTORY.

HISTORY OF ISLAM.

FIRST PAPER.

Examiner—S. KHUDA BUKHSH, ESQ., M.A., B.C.L. (Oxon).

Candidates are required to give their answers in their own words as far as practicable.

Write the answers to each half in SEPARATE books.

Not more than FIVE questions to be answered, of which at least TWO must be taken from each half. Question 1 is compulsory.

The questions carry equal marks.

FIRST HALF.

1. (*Compulsory.*) Critically examine, in the light of modern research, the truth of the following statements, citing authority for your views and assertions:—

(a) "Count Julian, the Governor of Ceuta, smarting under a cruel wrong inflicted on him by Roderick in the person of his daughter Florinda, joined in the appeal of the Spanish refugees to Musa to liberate the country from the usurper's yoke." (*Amir Ali*, p. 108.)

(b) "The answer of the Caliph Omar . . . was,—‘If these writings of the Greeks [*i.e.* the Alexandrian library] agree with the Book of God, they are useless and need not be preserved; if they disagree, they are pernicious and ought to be destroyed.’ The sentence was executed with blind obedience; the volumes of paper or parchment were distributed to the 4,000 baths of the city, . . . for consumption as fuel." (*Gibbon*, ch. 51.)

2. Trace the history of the Saracens in S.W. Europe up to 732 A.D. and justify the statement that—"The battle of Tours marked the extreme point of advance of the Saracens into Western Europe; but it was not the cause of the sudden stoppage of that movement."

What was the cause? Was the Muslim conquest of Spain the work of the Arabs only?

3.

Either,

What part did the Turks play in the history of the various Muslim states of Asia between 830 and 1240 A.D.?

Or,

Write an account of the contribution of the Saracens to the intellectual development of Asia during the middle ages.

4. Sketch the history of Egypt under the Fatimides, describing their system of administration and the progress of the country under them.

SECOND HALF.

5. Omar's policy has been described as a truly national policy. Is this a correct description of the policy of the second Caliph? Discuss this statement.

6. Write a short account of Arab conquests under the Omayyads.
7. Write a short life of any one of the following:—(a) Hisham, (b) Abdul Malik, (c) Mamun, (d) Mutawakkil.
8. Write a short note on the *Kharijites* or on the *Mutazzalites*. What political influence, if any, had they on the Caliphate?
9. What were the taxes imposed under the Omayyads (a) upon Muslims, (b) upon non-Muslims? What alterations, if any, were made under the Abbasids?

HISTORY.

HISTORY OF ISLAM.

SECOND PAPER.

Examiner—JADUNATH SARKAR, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Only THREE questions to be answered from each half.

The questions are of equal value.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

1. Discuss the comparative value of our authorities for the history of the Ghaznevides. Quote facts to show how the Ghaznevides treated their Hindu subjects and the importance they attached to their Indian possessions.
2. Write a short history of the Bahmuny kingdom from 1461 to 1482. What light is thrown on Bahmuny rule by the diary of Athanasius Nitikin?
3. Compare Akbar with Abd-ur-Rahman III of Cordova. What is the place of Indian thought in his religious system?
4. Comment on the twelve rules promulgated by Jehangir at his accession so as to bring out how far they were original and how far they were observed.
5. Review Mughal relations with Europeans before 1748.

SECOND HALF.

6. "The real source of Sultan Mahmud's glory lay in his combining the qualities of a warrior and a conqueror, with a zeal for the encouragement of literature and the arts which was rare in his time, and has not yet been surpassed." Discuss this statement.
7. Discuss the origin of the house of Ghor and describe the causes which led to the dissolution of the Ghorian Empire.
8. Write a short note on Mohamedan Learning in India.

9. "Babur was the founder of a line of kings under whom India rose to the highest pitch of prosperity, and out of the ruins of whose Empire all the existing states in that country are composed." Discuss this statement.

10. Describe the internal state of India under the Mohammedan rule.

HISTORY.

SPECIAL PERIOD OF INDIAN HISTORY.

FIRST PAPER.

Examiner—SURENDRANATH MAJUMDAR, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Not more than SIX questions to be answered, three being taken from each group.

The questions carry equal marks.

GROUP A.

1. Give an account of the *Dharmasūtras*; distinguish them from the *Dharmaśāstras* and discuss the origin of the latter.
2. Mention the various schools of the *Yajurveda*. To what extent did the *Yajurvedic* Indians develop the civilisation, culture and social system of the *Rigveda*?
3. (a) How have crimes been classified in the *Manusmṛitī*?
(b) Is the text of the *Bṛiguproktā Manusmṛitī* the last link in a long chain of metrical recensions? Give reasons for your answer.
4. State the various sources of revenue in ancient India.
5. (a) Explain clearly the safeguards prescribed by Bhishma to protect the people from the oppressions of a king and of his officers.
(b) Compare the position of the *Sudras* and of the *Brāhmins* as described in the *Manusmṛitī* with that given in the *Sāntiparvan*.

GROUP B.

6. Criticise Dr. Bhandarkar's view of Andhra chronology. State and discuss other theories on the subject.
7. Describe the political, religious, social and economic condition of *Mahārāstra* during the first two centuries of the Christian era.
8. (a) Indicate the part played by Dhruva, Govinda III and Amoghavarsha I in the politics of Northern India.
(b) Sketch the career of (i) Singhana or (ii) Vikramāditya Tribhuvanamalla of the Later Chālukya Dynasty.
9. (a) Indicate from inscriptions the position of Buddhism in India during the period between 200 B.C. and 300 A.D.
(b) Write critical notes upon the *Vaipulyasūtras* or the First Buddhist Council.

10. Reproduce Rhys David's views on the origin of writing in India. State other theories on the subject.

11. Write notes on the nature, the origin, and the historical importance of the Jātaka stories.

HISTORY

SPECIAL PERIOD OF INDIAN HISTORY.

SECOND PAPER.

Examiner—MAHAMAHOPADHYAYA HARAPRASAD SASTRI, M.A.,
C.I.E.

Candidates are required to give their answers in their own words as far as practicable.

GROUP A.

The figures in the margin indicate full marks.

1. Write a short history of Pataliputra from its foundation down to 1200 A.D. 10

Or,

Give a history of Taxila from its foundation down to the time of Yuan Chwang.

2. Name five of the great Viharas of the Buddhists and give their short history so far as known to the present day. 10

Or,

Name five cities made famous by the events in Buddha's life and give their short history so far as known to the present day.

3. Who is Paṇḍa? To what part of India did he belong? 5

Or,

Where is Tosali, and why is it known in history?

4. Give a short account of the territorial growth of the Gupta Empire with a history of its downfall. 10

5. Give the substance of the separate Rock-Edict at Dhauli and the Bhabha Edict. 15

Or,

Mention the inscriptions in which Chandra Varma is mentioned. What do you know of his family?

GROUP B.

Answer FOUR questions only.

The questions carry equal marks.

6. Describe the political entities of India during the seventh century A.D., paying special attention to their religious institutions.

7. Draw a sketch-map of India showing Fa-Hien's itinerary, and briefly compare his descriptions of Pātaliputra, Kapilavāstu, Srāvasti and Takshasilā with those of Yuan Chwang.

8. "The Periplus of the Erythræan Sea is one of those human documents, like the journals of Marco Polo and Columbus and Vespucci, which express not only individual enterprise, but the awakening of a whole race toward new fields of geographical discovery and commercial achievement."—(*Schoff*).

Discuss the statement and give a short account of the principal ports of Ancient India.

9. Examine critically the extent of Alberuni's knowledge of either

(a) Literature and Science, or

(b) Manners and Customs of the ancient Indians.

10. Indicate the sources of our information regarding Chandragupta Maurya, and say what you know about the civilisation of India at his time.

11. Write full historical and topographical notes on any *five* of the following:—

(a) Udyāna, (b) Nelcynda, (c) Bukephala, (d) Tagara, (e) Karnasuvarna, (f) Ohind, (g) Mo-la-p'o, (h) Semylla, (i) Dhanakataka.

HISTORY.

SPECIAL PERIOD OF EUROPEAN HISTORY.

FIRST PAPER.

Examiner—ASWINIKUMAR MUKHERJEE, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Not more than SIX questions to be attempted.

The questions carry equal marks.

1. Describe the influence of Erasmus upon the Reformation movement.
2. Attempt to explain and justify the doctrine of indulgences from the Papal point of view.

3. "The Lutheran Reformation is less radical and complete than the Zwinglian, while its faith is more traditional and less historical and rational." Explain.

4. "The Reformation in Switzerland shows how largely the forms in which religious ideas express themselves are moulded by political forms." Illustrate.

5. "Calvinism tends to republicanism, individualism, laissezfaire, unrestricted competition and enterprise." Explain or refute this.

6. Under Maximilian the prospects of political reform in the Empire were bright. Show how the religious Reformation affected them.

7. "The whole Anabaptist movement was mediaeval to the core; and, like most of the mediaeval awakenings, produced an infinite variety of opinions and practices." Explain and illustrate.

8. Review Charles V's relations with the Papacy, France and the Turks, so as to indicate their influence on the fortunes of the protestant movement in Germany from the Diet of Worms in 1521 to the Augsburg Interim.

9. Describe the rise of the League in France. Show how it became democratic or anti-monarchical, and explain the difference, between this feeling and the anti-monarchism of the Huguenots.

10. Sketch the career of Philip of Hessen.

11. Write a note on the Swedish Reformation.

12. What were the causes of the Sack of Rome? Describe it and estimate its results.

HISTORY.

SPECIAL PERIOD OF EUROPEAN HISTORY.

SECOND PAPER.

Examiner—W. OWSTON SMITH, ESQ., M.A. (*Cantab.*).

Candidates are required to give their answers in their own words as far as practicable.

Not more than SIX questions to be attempted and not more than THREE are to be chosen from each group.

The questions carry equal marks.

GROUP A.

1. Explain the position of monasteries in the economic life of England, and show the economic effects of their suppression.

2. What doctrinal changes can be said to have been sanctioned by government in Henry VIII's reign?

3. Write a note on scholarship and learning as causes and as results of the Reformation.

4. Describe the political and religious state of Scotland in the first half of the sixteenth century.

5. Show the influence exerted by Wolsley upon the political Reformation under Henry VIII.

6. Give a short account of the Reformation movement in North-Italy.

GROUP B.

7. Compare the ecclesiastical policy of Elizabeth with that of James I. How far did the personal character of the two monarchs affect the religious disputes and the ecclesiastical "settlement" of their times?

8. "Ultimately two great parties evolved themselves among the Catholic Reformers." What were the aims of these two parties? Which was ultimately successful?

9. "The old monastic Orders, however, only set an example which, powerful for good though it was, went but a little way in restoring catholicism among the people. It was reserved for the Franciscans and for new religious societies to bring about a revival of popular religion." Explain and amplify this statement.

10. With what objects was the Council of Trent summoned? Estimate its results.

11. Give some account of the ebb and flow of the Counter Reformation in the Empire.

12. Compare generally the philosophical theory of Religion in Europe at the end of the 16th century with that which was commonly accepted at the beginning of that period.

HISTORY.

COMPARATIVE POLITICS

FIRST PAPER.

Examiner—SIR ASUTOSH MUKHERJEE, KT., C.S.I., M.A., D.L.

Attempt six questions only.

1. "The most natural form of the village appears to be that of a colony from the family composed of the children and grand-children who are said to be 'suckled with the same milk.' When several villages are united into a single community, the State comes into existence." (*Aristotle*.)

Discuss.

2. Discuss some of the more important causes of the decay of the city-state, dwelling in this connection on the nature and origin of what the Greeks called Stasis, and the remedies which Aristotle prescribed for this fell disease.

3. Explain the nature of the *disburdening ordinance* of Solon, and examine the justice of the charge brought against him in regard to this measure.

Justify the statement that "the tyranny of Peisistratos was a return of the Golden Age and reign of Kronos."

4. "The characteristic of ancient democracy was the centralisation of all powers—of omnipotent sovereignty—in one primary assembly." Examine this statement.

5. "All nations and cities are governed by the populace, by the nobility or by single rulers. The form of Government consisting of elements selected from these and blended together is more easily applauded than realised; or if realised, cannot be of long duration." (*Tacitus*).

Examine the accuracy of this statement by considering the stability of typical "mixed constitutions" in ancient and modern times.

6. "In the earliest forms of political society in Greece, Rome and Germany, though there are many important differences, still there is a certain agreement in general features." Discuss.

7. Examine how far the powers of the Senate at Rome can be compared with those of any modern Second Chamber.

8. Discuss how far the Roman Republic answered the conditions of a genuine democracy.

9. Explain the process by which law is brought into harmony with society. Discuss the characteristics of collections of ancient law as distinguished from systems of mature jurisprudence.

10. "Whatever may have been the nature of the Anglo-Saxon Witan, it is clear that the Anglo-Norman King has his *Curia Regis* which, like

its French analogue, is at once a body of Feudatories and body of officials." Elucidate and discuss.

11. Explain the effects of the Norman Conquest on the history of Law, and discuss the statement that "the kingship of England was, in the hands of William and his successors, emphatically a 'conquest,' not a heritage or elective office."

12. Construct a definition of the State which shall apply alike to ancient, mediæval, and modern communities.

Justify your definition.

HISTORY.

COMPARATIVE POLITICS.

SECOND PAPER.

Examiner—SIR ASUTOSH MUKHERJEE, KT., C.S.I., M.A., D.L.

Candidates are permitted to attempt SIX questions only.

The questions are of equal numerical value.

1. "From that time (1848) the promises of socialism have supplied the best energy of democracy. Their coalition has been the ruling fact in French politics. It created the "saviour of society," and the commune; and it still entangles the footsteps of the Republic. It is the only shape in which democracy has found an entrance into Germany. Liberty has lost its spell; and democracy maintains itself by the promise of substantial gifts to the masses of the people" (*Acton*).

Explain and comment upon these statements.

2. "The German Empire is only an extended Prussia." Discuss the truth of this view.

3. What is the history of the Democratic and Republican parties in the United States? Explain what is meant by "State rights."

4. What changes were made in the constitution of the United States in the Federal Convention of 1787?

5. Give some account of the constitution of Switzerland; sketch in outline the history of that constitution.

6. Give a summary of the principles upon which second chambers are chosen. How far have they served the purpose of checking rash legislation?

7. What means have been adopted to protect the rights of minorities throughout the world? Criticise them.

8. "The Parliamentary system has made the cabinet of the day autocratic." Explain and discuss.

9. In what respects does the Federal Constitution of the Australian Commonwealth differ from that of the United States of America?

10. Write a short historical account of Federalism.

11. Compare the powers of the President of the United States of America with those of the head of the Executive in England. Indicate the historical reasons for the difference.

12. "If France has been a laboratory for political experience, Austria-Hungary is a museum of political curiosities." Comment on this statement.

HISTORY.

EIGHTH PAPER.

ESSAY

Candidates are required to give their answers in their own words as far as practicable.

Indicate on the cover of the answer-book the subject of your Essay by the use of the appropriate letter (A), (B), (C), (D), (E), (F), (G), and (H).

Write an essay on only one of the following subjects :

A.

Examiner—R. C. MAJUMDAR, ESQ., M.A.

Political theories of the ancient Hindus and the extent to which they were influenced by religion.

B.

Examiner—GAURANGANATH BANERJEE, ESQ., M.A., B.L.,
F.R.S.A.

Artistic and literary achievements of the ancient Egyptians.

C.

Examiner—J. N. DAS GUPTA, ESQ., B.A. (Oxon).

The Parliament Act of 1911 its effect on the relative position of the two Houses of Parliament and the practical working of the English Constitution.

D.

Examiner—SIR ASUTOSH MUKHERJEE, KT., C.S.I., M.A., D.L.,
F.R.A.S., F.R.S.E.

Examine historically the attempts to find a basis for the authority of International Law. Consider how the present war is likely to affect the matter.

E.

Examiner—S. KHUDA BUKHSH, ESQ., M.A., B.C.L. (Oxon).

Mohammed's position as a religious teacher in the history of the world.

F.

Examiner—JADUNATH SARKAR, ESQ., M.A.

The history of the efforts to improve the condition of agriculture and the lot of agriculturists in British India.

G.

Examiner—B. B. SEN, ESQ., M.A.

Federalism in ancient and modern times and a scheme of Imperial Federation for the British Empire.

H.

Examiner—W. OWSTON SMITH, ESQ., M.A.

The relation between the political and moral and religious elements in the English movement of Reformation in the sixteenth century.

PHILOSOPHY.

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—REV. G. EWAN, M.A.

FOUR questions to be answered.

The questions carry equal marks.

1. State the theories of Thales and Anaximander, and consider how far the latter represents a philosophical advance as compared with the former.

2. Explain the relation of Heraclitus' philosophy to that of the Eleatic School, and examine how far his doctrines provided a solution of the difficulties of the Eleatic position.

3. Aristotle speaks of Anaxagoras as "the man who first announced that Reason was the cause of the world and of all orderly arrangement in nature no less than in living bodies." In the light of Anaxagoras' actual doctrines consider the real importance of this announcement.

4. Describe the general nature of the Sophistic movement, and in particular the scepticism ascribed to Protagoras.

5. Explain how the Stoics interpreted the nature of the physical world, and show the relation of these views to their ethical principles.

6. Discuss the historical relation of Neoplatonism to preceding Greek philosophy.

SECOND HALF.

Examiner—J. R. BANERJEE, ESQ., M.A.

Answer either Question 9 or Question 10 and three of the remaining questions. Altogether FOUR questions are to be answered, of which one and only one must be selected from the last two.

7. "Compared . . . with the point of view of the Sophists, that of Socrates is objective." Explain what was the special aim of the Socratic inquiry? Give an exposition of the Socratic *method*. "That which the former" (Socrates) "had laid down as the principle of knowledge was announced by the latter" (Plato) "as the principle of metaphysics." Develop the ideas embodied in this sentence. 10
8. What do you know of Plato's doctrines of Pre-existence and Transmigration? Examine them. 10
9. Fully discuss the question as to what Plato means by Ideas. What is the Idea of the Good according to him? 10
10. "With Plato, Greek philosophy . . . attained to the culminating point of its development . . . At the same time, nevertheless, with Plato, philosophy exhibited an idealistic antithesis to the given actuality, an antithesis which . . . demanded the supplement of a more realistic theory of things." Comment on this. 10
11. What are the points of agreement and difference between Plato and Aristotle as to the meaning and office of Philosophy? 10
12. What are the different grades or degrees of knowledge according to Aristotle? What does he say of dialectic? How does he contrast it with philosophy? On what grounds does he object to the Platonic doctrine of Ideas? 10
13. Compare the political theories of Plato and Aristotle. 10
14. Give a critical exposition of the Aristotelian doctrines of the *summum bonum* and virtue. 10
15. (a) Reproduce the discussion in the *Republic* of the question—what is justice? 20
- (b) Give Plato's observations (as contained in the *Republic*) on poetry and imitative art in connection with his plans for organizing the state.
16. (a) How does Aristotle in his *Metaphysics* show that there cannot be a science of the Accident? 20
- (b) What are the attributes of God mentioned by Aristotle in the *Metaphysics*, and how does he establish them?

PHILOSOPHY.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—KALIDHAN CHATTERJEE, ESQ., M.A.

Answer Question 7 and three of the remaining questions

1. Explain what is meant by Scholasticism. Sketch briefly the philosophical system of John Scotus Erigena. How far may he be regarded as the forerunner of Scholasticism? Do you find any analogy between his thought and that of any modern thinker? 13
2. Discuss fully the Scholastic controversy over the problem of Universals, noting clearly the origin of the problem, and the solutions suggested by the principal mediaeval thinkers. 13
3. Expound clearly the nature of the dispute that arose between the Thomists and the Scotists as to the primacy of the will or of the intellect in its psychological, ethical, and theological aspects. Cite analogies of this dispute in modern thought. 13
4. Trace the development of Empiricism from Bacon to Hume. Show how Bacon determined the predominant character of English Philosophy. 13
5. Give a critical exposition of Spinoza's conception of Substance. Account for the contradictory estimates of Spinoza as a pantheist and as an atheist, as a nominalist and as a realist. 13
6. Explain and examine Leibnitz's doctrine of Monads. Is Leibnitz's conception of God as the Monad of monads justifiable? 13
7. Write critical notes on *any one* of the following:— 11
 - (a) Spinozistic conception of the Intellectual love of God.
 - (b) Leibnitzian distinction between Necessary and Contingent truths.
 - (c) The doctrine of Innate ideas with special reference to the views of Descartes, Locke, and Leibnitz.
 - (d) The Cartesian theory of Nature and its significance for subsequent thought.

SECOND HALF.

Examiner—DR. HIRALAL HALDAR, M.A., PH.D.

1. What is the central problem of Kant in his *Critique of Pure Reason*? Explain and examine the validity of his solution of that problem. 12
2. What are the antinomies of Rational Cosmology? How do they arise? What is Kant's solution of them? 12

Or,

Explain and examine Kant's view of the proofs of the existence of God.

3. Give a critical account of Kant's theory of the Sublime or of the Beautiful. 12

Or,

Explain fully and clearly how the philosophy of Fichte arose out of that of Kant.

Or,

Give a critical account of Schopenhauer's theory of life.

4. Expound the main ideas of Hegel's philosophy. How is the Absolute Idea related to the Absolute Spirit? 14

PHILOSOPHY.

THIRD PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Answer only FOUR questions from EACH half.

The questions carry equal marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—DR. ADITYANATH MUKERJEE, M.A., PH.D.

1. "By the impossibility of knowing the universality of a proposition it becomes impossible to establish inference."

Explain the steps by which the Chārvāka seeks to establish the above position, and instance from Greek and modern European Philosophy similar attempts to establish the futility of the process of inference.

2. "Practical efficiency therefore in the non-permanent is inadmissible."

Clearly explain the line of argument by which the Bauddha develops the above doctrine and compare it with the Heraclitean doctrine of flux.

3. How does the Bauddha proceed to disprove the existence of a Universal? Briefly sketch the Bauddha doctrine of the five groups (Skandhas).

4. How does the Jaina proceed to upset the doctrine of Momentariness as held by the Bauddhas?

5. How is the doctrine of Causality respectively developed in the following systems:—

Bauddha, Sāṅkhya, and Nyāya?

6. How does the Naiyāyika formulate the Proof of the existence of God?

7. Explain the doctrine of Liberation (Moksha) as expounded in the following systems:—Chārvāka, Mādhyaṃika, Jaina, Sāṅkhya, and Nyāya.

8. How does the Vaiśeṣhika expound the categories of Substance, Quality, and Action?

SECOND HALF.

Examiner—HARIDAS BHATTACHARYYA, ESQ., M.A.

9. Compare the doctrines of Cosmical Evolution as expounded by Kapila, Anaxagoras and Spencer respectively.

10. Briefly formulatē the arguments by which Śankara criticises the Sāṅkhya doctrine of Pradhāna as the material cause of the world.

11. Summarise Śankara's criticisms of the doctrine of the Viṣṇūnavādin Bauddhas.

12. Briefly reproduce the arguments urged by Śankara against the Vaiśeṣika view that the world originates from atoms set in motion by Adrishta.

13. Furnish a critical comparison of the systems of Rāmānuja and Śankara. Which of these systems appeals to you and why?

14. Expound the Vedānta doctrine of Māyā, giving analogues from European Philosophy, ancient and modern.

15. How is the relation of Brahman to the Universe conceived by the Upanishads?

16. Write explanatory notes on *any three* of the following:—

Kinds of inference; relation of upādhi to vyāpti; kinds of samādhi; five sheaths of the soul; four states of the soul; the Sāṅkhya parable of iron and magnet; four sublime truths of Buddhism.

PHILOSOPHY.

ETHICS AND SOCIAL PHILOSOPHY.

FIRST PAPER.

Examiner—A. C. MITRA, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Discuss the character and origin of Moral Consciousness, referring to the views of Green, Spencer, and Sidgwick. 14

Or,

Determine the relative claims of Intuitionism and Utilitarianism as Theories of Morals. Explain and examine the remark—“A Utilitarian may reasonably desire, on Utilitarian principles, that some of his conclusions should be rejected by mankind generally.”

2. Determine the place of Wisdom as a virtue in the human constitution, indicating the views of eminent thinkers—oriental and occidental. 15

Or,

Point out the relation of Morality to Religion, examining the views of Sidgwick, Spencer, and Martineau in this connection.

3. Discuss the character of the Moral Ideal and its relation to circumstances, mentioning the views of Hegel, Green, and Wundt. 14

Or,

Determine the value of tracing moral rules to some supreme principle, or principles indicating the views of Kant, Sidgwick, and Green. Is unity attainable in morals?

4. Estimate the importance of Character and explain the circumstances which influence it. 14

Elucidate—"While external education begins the process of character-building, self-education completes it."

Or,

Distinguish Determinism, Indeterminism, and Self-determinism, and show if they can be reconciled in any way.

5. Distinguish Instinct, Desire, and Volition. How is Desire related to Pleasure and Intellect? 14

Or,

How far is it possible to draw a line between the Ethics of the Family and the Ethics of the State? Are they connected in any way?

6. Compare the views of Sidgwick, Spencer and Martineau in respect of Justice; and examine Spencer's deduction of the rights of women and children from it. 14

Or,

Compare the views of Kant, Bentham, and Butler in regard to Self-love, and show how far a system of duties may be deduced from it.

7. Give a critical account of any two of the following:— 15

(a) Pantheism as a moral theory.

(b) Evolutional Ethics as an explanation of moral facts.

(c) Asepticism as a moral ideal.

PHILOSOPHY.

ETHICS AND SOCIAL PHILOSOPHY.

SECOND PAPER.

Examiner—KHAGENDRANATH MITRA. ESQ.. M.A.

Candidates are required to give their answers in their own words as far as practicable.

- Not more than EIGHT questions to be attempted, of which THREE must be taken from Group A, TWO from Group B, and THREE from Group C.

The questions are of equal numerical value.

GROUP A.

1. What does Spencer understand by Conduct? Examine his determination of Conduct from the Physical, Biological, Psychological, and Sociological points of view.

2. Examine Spencer's adjustment of the respective claims of *Egoism* and *Altruism*.

3. How does Spencer criticise the Utilitarian and the Intuitionist Conceptions of *Virtue*?

Examine his theory of *Moral obligation*.

4. Explain the importance of *Custom* as a factor in the evolution of moral life.

5. Explain, after Wundt, any *one* of the following:—

Moral ends, moral motives, and moral norms.

GROUP B.

6. Explain Kant's conception of the *Autonomy* of the Will as the *Supreme Principle of Morality*. How does he connect this conception with that of a possible *Kingdom of Ends*?

7. Examine Kant's moral argument for *immortality*. Does Kant succeed in reconciling his theology with his Ethics by introducing the eudæmonistic element of *Compensation*?

8. Compare Kant's Conception of Will with Hegel's. How does Hegel's view overcome the narrow individuality of Kant's?

9. "The highest summit of subjectivity asserting itself as the absolute is the bad." Discuss this dictum of Hegel and give the several forms of subjective evil enumerated by him.

GROUP C.

10. What are the main physical, emotional, and intellectual characteristics of the primitive man? How does the primitive man come to form the conception of the supernatural world?

11. Explain and criticise the biological view of *Society* as expounded by Spencer. Examine his analogy between *Society* and the animal organism.

12. Explain Spencer's classification of societies into militant and industrial types, giving the leading characteristics of each type.

13. Define the province of *Sociology* and criticise the view which characterises it "as a badly determined science that presents no well-defined line of demarcation from the moral and political sciences."

14. Write brief notes on—

(a) *Social Memory*;

(b) *Social Values*;

(c) the *Social Mind*.

PHILOSOPHY.

SPECIAL BRANCH OF INDIAN PHILOSOPHY.

FIRST PAPER.

Examiner—DR. P. D. SASTRI, M.A., PH.D.*Candidates are required to give their answers in their own words as far as practicable.**The questions carry equal marks.*

1. How many kinds of सत्ता are recognised (a) in Shankara, and (b) in the Vedāntaparibhāṣā? Point out any analogies in European philosophy.

Or,

Discuss the function of वृत्ति in Vedantic Epistemology.

2. What is the प्रयोजक of प्रत्यक्षज्ञान? Distinguish between -

(a) सविकल्पक and निर्विकल्पकप्रत्यक्ष ।

(b) जीवसात्ति and ईश्वरसात्तिप्रत्यक्ष ।

(c) बाध and निवृत्ति ।

Or,

Answer the following objection of the Pūrvapakṣin:—

“ननु कथं घटादेरन्तःकरणावच्छिन्नचैतन्याभेदः अहमिमं पश्यामीति भेदानुभवविरोधात्” ।

3. Give a detailed account of Shankara's refutation of the proposition ‘ज्ञानं नाम मानसौ क्रिया’ । Which school holds this proposition, and on what grounds?

Or,

What is the significance of अध्यास in Shankara's Vedānta?

State the objections to अध्यासवाद from the standpoints of Ramanuja and Hegel.

4. How is मोक्ष conceived by—(a) the six systems of Hindu philosophy, (b) Buddha, (c) Christ, (d) Schleiermacher, and (e) Spinoza. Discuss the relative value of कर्म, भक्ति and ज्ञान as its means. What is the meaning of क्रममुक्ति and केवल्य?

Or,

What is the fundamental standpoint of the doctrine of Karma? What is the function of कर्म in जीवमुक्तदशा? How do the Vedānta and the Sāṅkhya avoid the implication एकमुक्तौ सर्वमुक्तिः?

5. Construct **स्वरूपलक्षण** and **तद्व्यलक्षण** of Brahmap. Which of the definitions is embodied in the sūtra “**जन्माद्यस्ययतः**”? Interpret this sūtra after Shankara and Rāmānuja.

Or,

Meet the following argument :—

ननु नाहमीश्वर इत्यादि प्रत्यक्षेण किञ्चिद्व्यलक्षणसर्वज्ञत्वविरुद्धधर्माश्रय-
त्वादिलिङ्गेन श्रुत्या स्मृत्या च जीवपरभेदस्यावगतत्वेन तत्त्वमस्यादि
वाक्येषु पचरितार्थमेवेति ” ।

6. Explain the purport of the following :—

निर्विशेषं परं ब्रह्म साक्षात्कर्तुमनीश्वराः ।
ये मन्दास्तेऽलुक्मप्यन्ते सविशेषनिरूपणैः ॥
वशीकृते मनस्येषां सगुणब्रह्मशीलनात् ।
तदेवाविर्भवेत्साक्षादप्येतोपाधिकल्पनम् ॥

Or,

Comment on any two of the following sūtras :—

- (a) वैषम्यनैर्घृण्ये न सपितृत्वात्तथा हि दर्शयति ।
- (b) रचनानुपपत्तेश्च नानुमानम् ।
- (c) तर्काप्रतिष्ठानादप्यन्यथानुमेयमिति चेदेवसम्यविमोक्षप्रसंगः ।

7. सर्वस्यात्मत्वाच्च ब्रह्मास्तित्वप्रसिद्धिः । आत्मा च ब्रह्म । यदि तर्हि
लंके ब्रह्मात्वेन प्रसिद्धमस्ति ततो ज्ञातमेवेत्यजिज्ञासत्वं पुनरापन्नम् ।

Complete the argument and meet it after Shankara.

Or,

Define व्याप्ति, and comment on the following text :—

न च संस्कार जन्यत्वेनानुमितेः स्मृतित्वापत्तिः स्मृतिप्रागभावजन्यत्वस्य
संस्कारमात्रजन्यत्वस्य वा स्मृतित्वप्रयोजकतया संस्कारध्वंससाधारण संस्कार-
जन्यत्वस्य तदप्रयोजकत्वात् ।

Should **व्याप्ति** be recognised as an independent **प्रमाण** or not? Give reasons for your answer.

PHILOSOPHY.

SPECIAL BRANCH OF INDIAN PHILOSOPHY.

SECOND PAPER.

Examiner—S. K. MAITRA, ESQ., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The questions are of equal numerical value.

1. Expound the Sāṅkhya conception of Moksha and compare it with that of the Purva Mīmāṃsā and of the Shankara-Vedānta. What is the place of Karma (Kāmya and Nitya) in the Sāṅkhya scheme of ethical discipline? Compare the position of the Sāṅkhya in this regard with that of Shankara and of Rāmānuja.

Or,

Show how the question of Bandha-Moksha is related in the Sāṅkhya system to the question of one or many Purushas. Compare the Sāṅkhya view as regards the question of one or many Purushas with that of the Nyaya and of the Shankara-Vedānta. How is the individual Ego related in the Sāṅkhya to the transcendental Ego? Compare the Sāṅkhya view as regards this question with that of Thomas Aquinas and of Averroes.

2. Explain after the Sāṅkhya the nature of valid cognition. Show how the Sāṅkhya doctrine of Pramāṇa differs from that of the Shankara-Vedānta. Examine the Sāṅkhya view as regards the conditions of Pramāṇa with reference to the following: (1) Perception, (2) Inference, (3) Shabda.

Explain after the Sāṅkhya the nature of Sāmānyatodrishta Anumāna.

Or,

Explain (1) Upamāna, (2) Arthāpatti, (3) Anupalabdhi, (4) Sambhava, and discuss the question whether they can be regarded as independent sources of knowledge (Pramāṇa).

3. Expound the Sāṅkhya doctrine of causation and compare it with that of the Buddhists, the Naiyayikas, and the Shankara-Vedantists. Institute a critical comparison between the Sāṅkhya-Pātanjala and Bergsonian conceptions of time.

Or,

Explain the Sāṅkhya doctrine of Cosmic Evolution (1) as regards creation, (2) as regards dissolution. Compare the Sāṅkhya view in this respect with that of Spencer. Expound in this connection the Sāṅkhya deduction of the categories of Prakriti, Mahat, Ahankāra, and the Tanmātras.

4. Compare the Sāṅkhya conception of teleology with that of Aristotle, Schopenhauer, and Bergson. Expound in this connection the Sāṅkhya critique of the Nyaya conception of teleology.

Explain after the Sāṅkhya the nature of the individual Ego (1) as an agent, (2) as an experiencer of happiness and suffering. Compare the Sāṅkhya view in this regard with that of the Nyaya and of the Shankara-Vedānta.

Or,

Explain the position of the Kapila-Sāṅkhya in regard to the question of the existence of a Supreme Person as the Creator and Moral Governor

of the world. Show how the Kapila-Sāṅkhya differs in this respect from the Purva Mīmāṃsā. What are the difficulties that arise in the system of Kapila owing to its peculiar position in regard to the theistic question? How does the Pātanjala-Sāṅkhya seek to remove these difficulties?

Give the substance of the Sāṅkhya critique of the theistic proofs.

5. Discuss any two of the following:—

(1) ये तु मन्यन्ते न प्रीतिर्दुःखाभावादिति स्थिते, एवं दुःखमपि न प्रीत्यभावादित्येति तान् प्रत्यात्मग्रहणं । नेतरेतराभावाः सुखादयः, अपि तु भावाः आत्मशब्दस्य भाववचनत्वात् प्रीतिरात्माभावो येषां ते प्रीत्यात्मनः ।

(2) पुरुषोऽस्ति अव्यक्तादेर्व्यतिरिक्तः, कुतः? संघातपरार्थत्वात्, अव्यक्त-महदहङ्कारादयः परार्थाः, संघातत्वात् शयनासनाभ्यङ्गादिवत्, सुखदुःख-मोहात्मजनया अव्यक्तादयः सर्वे संघाताः । स्यादेतत्, शयनासनादयः संघाताः संघात-शरीराद्यर्था दृष्टा, न तु च आत्मानं व्यक्ताव्यक्तव्यतिरिक्तं प्रति परार्थाः, तस्मात् संघातान्तरमेव परं गमयेयुः, न त्वसंघातमात्मान-मित्यत आह त्रिगुणादिविपर्ययात् अव्यमभिप्रायः, संघातान्तरार्थं भवितव्यं, एवं तेन तेनेत्यनवस्था स्यात् । न च व्यवस्थायां सत्यामनवस्थायुक्ता, गौरवप्रसङ्गात् । न च प्रमाणवत्त्वेन कल्पना गौरवमपि सृष्यत इति युक्तं, संघतत्वस्य पारार्थमात्रेणान्वयात् । दृष्टान्त-दृष्ट सर्वधर्मानुरोधेन त्वनुमानमिच्छतः सर्वानुमानोच्छेद-प्रसङ्गः ।

(3) संकल्पेन रूपेण मनो लक्ष्यते, आलोचितमिन्द्रियेण वस्त्वित्द-मिति सम्मगधमिदमेवं नैवमिति सम्यक्कल्पयति, विशेषणविशेष्यभावेन विवेचयतीति यावत् । यदाहुः ।

सम्मगधं वस्तुमात्रं तु प्राक् सृष्ट्वैव विकल्पितम् ।

तत्सामान्य-विशेषाभ्यां कल्पयन्ति मनीषिणः ॥

(4) व्यक्तीनामनित्यत्वेऽपि च एवायं घट इति स्थिरतायोगेन यत् प्रत्यभिज्ञानं तत् सामान्यस्य सामान्यविषयकमेव तत् प्रत्यभिज्ञानमित्यर्थः ।

तस्मान्न सामान्यापलापो युक्त इत्याह ।

न तदपलापस्तस्मात् ॥

नन्वेतद्वावृत्तिरूपेणाभावेनैव प्रत्यभिज्ञोपपादनीया सेव च सामान्य-शब्दार्थोऽस्तु तत्राह ।

नान्यनिवृत्तिरूपत्वं भाव प्रतीतेः ॥

PHILOSOPHY.

LOGIC.

EPISTEMOLOGY AND METHODOLOGY.

FIRST PAPER.

Examiner—P. K. CHAKRABARTI, ESQ., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

Only SIX questions to be answered.

The questions are of equal numerical value.

1. Discuss the scope of Logic. Is a complete study of Logic possible apart from Epistemology?
2. State and critically examine the postulates of Material Logic.
3. How far are Perception and Memory reliable sources of knowledge? Is it possible to lay down rules for correcting knowledge derived from them?

4. $\begin{array}{l} \text{All } A \text{ is } B, \\ \text{All } C \text{ is } A, \\ \text{All } C \text{ is } B. \end{array}$ °

Demonstrate the correctness of the reasoning process involved in the syllogism stated above. What are your reasons for saying that, if the premisses in the above syllogism are true, the conclusion *must* be true?

5. Give a critical exposition of Lotze's theory of Relations.
6. Explain and examine the following lists of truth: (1) self-evidence, (2) conformity with experience, and (3) consilience.
7. Define the sceptical position, and discuss Lotze's attitude towards it.
8. "A reign of law, embracing all reality and admitting of no exception to its rules, is therefore noither an actual nor a possible outcome of experience, but only an assumption with which every enlargement of our experience is accompanied." (Lotze.)

Examine the proposition.

PHILOSOPHY.

LOGIC.

EPISTEMOLOGY AND METHODOLOGY.

SECOND PAPER.

Examiner—DR. P. K. RAY, D.Sc.

*Candidates are required to give their answers in their own words
as far as practicable.*

The questions bear equal marks.

Only SIX questions to be answered.

1. Distinguish Observation from Inference and determine its position in Logic. Are there any inferential elements in ordinary observation? Describe and illustrate the fallacies of observation.

2. State the problem of Definition and institute an inquiry to define (1) Cognition and (2) Justice.

3. State the problem of Scientific Classification and test the following classifications of mental phenomena (1) into Cognitions and Volitions, (2) into Knowing, Feeling and Willing, and (3) into Feelings and their Relations.

4. Give examples of hypothesis from Psychology or any other science and test them by the rules of the Hypothetical Method.

5. What is meant by a Cause in Science? Given a phenomenon: State (1) the method or methods you would employ for discovering its cause, and (2) the method or methods you would use for proving that the cause so discovered is really the cause of the phenomenon. Illustrate your answer by examples from Psychology or any other science.

6. What is a Law of Nature? How would you distinguish between Ultimate and Derivative Laws? Is there any finality to our knowledge of the Laws of Nature?

7. Discuss the origin, import and validity of the belief in the Uniformity of Nature.

8. What is the bearing of Realism and Nominalism on the processes of Definition, Classification, Induction and Deduction? Fully discuss the question

PHILOSOPHY.

PSYCHOLOGY.

FIRST PAPER.

Examiner—DR. RAMDAS KHAN, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. What are the physiological substrata of sensational systems ? 12

Or,

What are the three great principles that general psychology has reached in its investigation of knowledge ? Discuss them fully.

2. Discuss critically the Theories of Instinct and Animal Play. 12

3. Examine carefully the methods of experimenting with children, with especial reference to Distance and Colour Perception. 12

Or,

What do you know of the child's mental development in general, and how would you observe children with especial reference to Imitation ?

4. Examine fully the genesis, function and appearance of Imagery upon the field of psycho-physical processes. 13

Or,

Discuss critically the physiological, psycho-physical, and psychological interpretations of Weber's Law.

5. Explain and illustrate fully the interpretative and peripheral factors in the causes of Illusion. 13

Or,

Explain and discuss fully the order of development of the Cognitive Processes.

6. Examine and discuss carefully the processes involved in the development of Judgment. 13

Or,

What are the physiological and psychical conditions of Memory ? What are the defects and abnormalities in Recollection ? How would you explain the individual differences in memory ?

7. Discuss briefly any *five* of the following :— 25

- (a) The concept of pure sensation.
- (b) The concept of consciousness.
- (c) The principle of psycho-physical parallelism.
- (d) Faculty Psychology.
- (e) The so-called law of specific energy of nerves.
- (f) Qualitative Local Signs.
- (g) Reaction Experiments.

PHILOSOPHY.

PSYCHOLOGY.

SECOND PAPER.

Examiner—DR. N. N. SEN GUPTA, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Systems of Psychology are sometimes classified with reference to a particular aspect of consciousness. Accept this method and enumerate the mental principles that serve as the basis for classification in different systems. Indicate to which class or classes the systems of Stout, James and Spencer belong, supporting your answer in each case by an exposition of the doctrines that help you to locate the systems. 20

2. It has been urged that pleasure and pain are not the only qualities of 'feeling.' Enumerate the other qualities which have been subsumed under 'feeling' and critically examine the evidence on which such subsumption has been based. 14

Or,

Pleasure and pain are regarded by some as class-concepts subsuming different shades of pleasure-pain qualities, and by others as individual feeling qualities. Which view do you accept, and why?

3. Feeling, it is said, is the initiating cause of action. Compare this view with other views concerning the relation between feeling and action. 12

Or,

Estimate the psychological importance of Experimental Aesthetics and co-existence of opposite feeling tones.

4. Spencer defines 'instinct' as a 'compound reflex.' Discuss the view, taking into account the principal arguments urged against it. Show how reflexes are 'compounded.' 16

Or,

What is the difference between automatic, instinctive, and volitional action? What is the physiological mechanism of reflex action?

5. State and examine the views of James and Stout concerning the nature of instinct. 12

Or,

Discuss the question of relation between instinct and emotion.

6. Compare Wundt's theory of emotion with that of James. Give your estimate of the two views. 12

Or,

What part do instincts play in the cases of psychic abnormality?

7. Critically discuss the concept of "Mental activity." What light does the concept throw on the nature of attention, association, and apperception? 14

Or,

Discuss the nature of Will with special reference to the following phenomena: co-ordination and adaptation, variability of response, choice, and deliberation.

PHILOSOPHY.

PHILOSOPHY OF RELIGION.

FIRST PAPER.

Examiner—REV. DR. W. S. URQUHART, M.A., D.D.

Only SEVEN questions to be answered.

The questions are of equal numerical value.

Candidates are required to give their answers in their own words as far as practicable.

1. Discuss the possibility, in theory and in practice, of a morality without religion, and of a moral order without a religious order.
2. Show how, in the history of thought, a conflict has frequently arisen between religion and science. Is there any justification for such a conflict?
3. Discuss the influence of the evolution theory upon teleology.
4. State clearly your own opinion as to the value of the treatment of the problem of evil given by *either* Martineau *or* Pfleiderer *or* Plotinus.
5. Discuss the value of anthropomorphism in religious conceptions.
6. Justify as fully as you can either the belief or the disbelief in personal immortality.
7. Point out the inner contradiction of the sceptical attitude and show the connection between scepticism and pessimism.
8. Compare the Platonic and Aristotelian philosophies in some of their effects upon the philosophy of religion.
9. Caird says, "The mystic who finds everything in God seems to speak the same language as the agnostic who finds nothing in him." Explain this statement and illustrate it by reference to the philosophy of Plotinus or to a school of Indian philosophy.
10. Discuss generally the claims of Reason and Intuition as instruments of the knowledge of God, and refer specially to the views of any one leading philosopher on this subject.
11. Unfold the argument for finality which may be based upon the *complexity* and *concordance* of phenomena.
12. Discuss the validity of the substitution of *chance* for teleology.

PHILOSOPHY.

PHILOSOPHY OF RELIGION.

SECOND PAPER.

Examiner—DR. B. C. GHOSH, M.A., M.B., B.C.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. What considerations led Spencer to assert that all religions may be "adumbrations of truth"? How can this view be criticised? 12

Or,

"That while it is impossible for us to have a conception, there yet remains a consciousness" of the unknowable.

Discuss in detail how Spencer maintains this position.

2. In what senses is knowledge of God not attainable? Give a short account of Hume's Agnosticism in religion and his discussion of miracles. 12

Or,

Discuss the principles on which Hamilton based his affirmation that God is unknowable.

3. Follow up the argument by which Lotze proves the existence of the Absolute Personality. 14

4. "The spirit world... is no natural consequence flowing from the being of God." 12

Comment on this statement and discuss Lotze's view of Creation.

Or,

In what sense does God govern the world? What purpose of the world is emphasized in Lotze's teleological idealism?

5. How far can the moral conscience serve as the basis of religion? Is the majesty of moral laws infringed if they be regarded as the will of God? 12

Or,

Examine Hegel's criticism of Agnosticism and Mysticism.

6 Show, after Hegel, "the necessity and mediation of the religious attitude." 12

Or,

Discuss, after Hegel, the question whether there can be a philosophical knowledge of God. What does he say of the nature of worship and its special forms?

7. Discuss Royce's definition of the Omniscient Being and develop the argument by which he seeks to establish the reality of the Omniscient. 14

8. "Beyond experience there is, if anything, *further experience*." 12

Comment on this statement, indicating briefly the transition from Realism to Idealism. Estimate the worth of Monistic Idealism as against Agnosticism.

Or,

What view does Royce take of the Divine Will? How does he attribute to the Absolute "a logically complete form of self-consciousness"?

What does he mean by the Individuality of the Absolute?

PHILOSOPHY.

ESSAY.

EIGHTH PAPER.

Examiner—DR. BRAJENDRANATH SEAL, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

Write an Essay on ONE of the following subjects:—

- (1) Monism, Dualism and Pluralism, in the East and the West: a study in types of thinking.
- (2) The New Realism.
- (3) The Will to Live, the Will to Power, and the Will to Believe.
- (4) The Social Foundations of Belief.
- (5) The Ethics of Marriage in the light of its historic evolution: a philosophical discussion.
- (6) Apperception, its psychological and epistemological significance.
- (7) Nature and Art from the Oriental as well as the Occidental point of view.
- (8) The Religious Ideal: whether based on the conception of identity or Communion with the Divine.
- (9) Intellectualism and Intuitionism in the Vedanta,—a comparison and a contrast with Bergson's view.
- (10) The ground of Induction: a critical examination of typical views propounded in Systems of Logic, European as well as Indian.

POLITICAL ECONOMY AND POLITICAL PHILOSOPHY.

FIRST PAPER.

Examiner—C. J. HAMILTON, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Not more than SIX questions to be answered

The questions carry equal marks.

1. In what sense are the "Laws" of economics "abstract"? To what extent are they applicable in solving the actual problems of practical affairs? Illustrate your answer by reference to definite examples.
2. Explain carefully what is meant by "land on the margin of cultivation." Would Rent cease supposing all land were of equal fertility and situation advantage? Show what would be the probable effect on Rents of a general improvement in the means of cultivation.
3. Carefully explain the subsistence theory of wages. How does it differ from the theory of wages generally held in modern economic theory?

4. What is meant by Joint Supply ? Is the supply of Railway goods transport a true case of Joint Supply ? Show the bearing of your answer on the problem of fixing Railway rates so as to give the greatest public advantage.

5. Examine the causes of the main contests between Capital and Labour in modern industrial countries. Can you suggest any means by which these "Labour troubles" might be removed ?

6. Explain the advantages and disadvantages of a Paper Currency. Particularly consider how a country with a paper currency may best maintain the equation of international exchange.

7. What are the principal functions of Modern Banking ? Discuss the criticisms recently levelled against the British Banks as instruments for the development of foreign trade.

8. "Safety is more important than Opulence" Consider how far this principle should be applied in modifying the Fiscal Policy of a modern nation which would result from a pure regard for the theory of International Trade.

9. Examine the relative advantages of direct and indirect taxation. To what do you ascribe the modern tendency towards an increased use of graduation in taxation. Do you consider this tendency economically sound ?

POLITICAL ECONOMY AND POLITICAL PHILOSOPHY.

SECOND PAPER.

Examiner—T. T. WILLIAMS, ESQ., M.A.

Only six questions to be attempted.

The questions carry equal marks.

1. What are the evils of the conflict of labour and capital ? What remedies have been suggested ? When can they succeed ?

2. What is the aim of the organisation of labour in the form of trade-unions ? In what manner do they proceed to achieve that aim ?

3. Discuss the principle of "charging what the traffic will bear" in the case of railway rates and fares. In what cases is this principle modified or abandoned by railway companies ?

4. What leads to industrial combinations ? What forms do they assume ? What is the effect of industrial combinations on public welfare ?

5. Discuss the function of the speculator in modern business activity. To what extent is it possible to prevent speculation ?

6. What constitutes the balance of indebtedness between two countries ? What happens when the balance is unfavourable to a country ? Describe the part played by banks in dealing with an exchange crisis.

7. For what purposes are index numbers constructed ? What difficulties have to be faced in constructing them ?

8. Discuss fully, in reference to India, the economic effects of any two of the following :—

(a) A heavy duty on the export of unmanufactured jute.

(b) Prohibition of the export of hides and skins.

(c) Import duty of 20 per cent on silver.

(d) Total prohibition of the import of motor-cars.

9. State clearly, with illustrations, the shortcomings of state economic enterprises as compared with private commercial undertakings. In which cases are state activities justified regardless of financial results?

10. What are the four canons of taxation given by Adam Smith? What other principles have been suggested by later writers? To which of them should the economist give the greatest weight, and why?

POLITICAL ECONOMY AND POLITICAL PHILOSOPHY.

THIRD PAPER.

Examiner—W. C. WORDSWORTH, ESQ., M.A.

Answer SIX questions only.

The questions carry equal marks.

1. How far is universal suffrage a guarantee of civil liberty?
2. Discuss the political advantages that result from diversity of opinion within a community.
3. What was Mill's position regarding the degree of authority that society should be permitted to exercise over the individual? How far has his point of view been recognised by the political practice of the last half-century?
4. Discuss the importance of contracts to society, and indicate any limits which public interest requires to be placed on the application of the doctrine that the state should enforce the fulfilment of all contracts.
5. How far is it incumbent upon Government to prevent wrongful acts otherwise than by the infliction of punishment?
6. Explain the political doctrine usually known as "The theory of the separation of powers." Is this separation discoverable in any modern constitution?
7. What are T. H. Green's general views as to (a) the foundation, (b) the limits, of political rights?
8. Examine the function of punishment with reference to the practice of modern civilised communities. How far does political punishment include the element of revenge?
9. Give a brief account of the influence of the belief in a Law of Nature on mediæval politics and morals. What traces of that influence remain in modern political practice and speculation?
10. Discuss the origin of political obedience, and the forces that sustain it in (a) primitive, (b) highly civilised communities.
11. Describe briefly some of the characteristic features of English political thought during the last century.

POLITICAL ECONOMY AND POLITICAL PHILOSOPHY.

FOURTH PAPER.

Examiner—S. C. RAY, ESQ., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

Answer question 1 and any FIVE of the remaining nine questions.

1. Annotate the following :— 20
 - (a) The king can do no wrong.
 - (b) The Cabinet is the hyphen that joins the buckle that fastens the executive with the legislature.
 - (c) Before 1832, the House of Commons was the over flow meeting of the House of Lords.
 - (d) The Judge is a lion under the throne.
 - (e) The British Government has no constitution.
 - (f) The strength of the House of Lords lies in its weakness.
 - (g) The most valuable minister is one who knows nothing about his Department when appointed.
 - (h) Combination of the sentiments of union and separation is the foundation of federalism.
 - (i) The Septennial Act proves that in the legal point of view Parliament is neither the agent of the electors, nor in any sense a trustee of its constituents.
 - (j) While science is weakening the position of England as an island kingdom it is greatly strengthening its position as an Empire.
2. To what causes are generally attributed the waning influence of the House of Commons, the predominance of the Cabinet, and the increased political power of the electorate? By what signs can these phenomena be clearly discerned? 16
3. Describe the motives and causes of British colonisation and colonial expansion? Is the Empire a *necessity* to the British people? 16
4. Analyse the two fold functions of the Governor of a self-governing colony: (1) as head of the Colonial Executive; (2) as representative of Imperial interests. 16
- Discuss the constitutional relations between the Governor and his Executive Council and the nature and extent of the Imperial control exercised over the former.
5. Write a note on the legality or otherwise of imposing a super-tax on the income from land in Bengal. 16
6. Describe critically the system of "Native State Protectorates" in India with special reference to their international rights. 16
- What useful purpose do they serve in the Indian Polity?
7. Write a note on the "Inland Customs Line" in India. What administrative measures were taken to gradually bring about its abolition? 16
8. Contrast the economic effects of *loans* and *taxes* in meeting abnormal expenditure for uneconomic purposes. 16
- Under what conditions and limitations is borrowing preferred to taxation?

9. The system of "Administrative Courts" is the extreme application of the theory of the "separation of powers." Expound this statement. 16

For what special reasons are "administrative courts" defended and retained in France?

10. What is the constitutional relation between the Secretary of State and the Governor General of India? 16

"The Governor General of India is the direct and personal representative of the Crown and therefore free from ministerial control."

Examine this statement critically.

POLITICAL ECONOMY AND POLITICAL PHILOSOPHY.

GROUP A.

FIFTH PAPER.

Examiner—T. T. WILLIAMS, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

FIVE questions only to be attempted.

The questions carry equal marks.

1. Give brief biographical sketches of any two of the following economic writers, and trace the influence of their writings upon economic thought: Marx, Adam Smith, J. S. Mill, Cournot, and List.

2. Give some account of the classical and the historical schools in Political Economy. Trace the main points of difference between these two schools. Is there any special method of investigation applicable to Economics only and not to other branches of knowledge?

3. Discuss, with reference to the history of the last two centuries, the effect of the development of the means of transport and of the demands of armies upon the growth of large-scale industries. What other influences have contributed to the growth of large-scale industries?

4. Give a brief sketch of the inventions and the spread of their use in the Cotton Trade. Give also some account of the rise of the cotton-spinning industry in India.

5. Trace the causes of rural depopulation in Great Britain. To what extent has a similar movement of the population taken place in India, and to what causes do you ascribe this?

6. Trace the changes in the British Income-tax from the time of the younger Pitt to the present. Show how economic thought has from time to time influenced the form of this tax.

7. Briefly contrast the prevailing systems of land tenure in India with that common in Great Britain. Give the main historical factors which have brought about these differences. To what extent may these systems of land tenure be said to be the results of economic conditions, and to what extent are they factors contributing to economic progress?

8. What is Economic Progress? What classes of facts would you appeal to in order to estimate the economic progress which has taken place in India and in France during the last hundred years?

9. Give some account of the growth of great combinations of capital during the last 50 years. In what direction is it necessary to modify older conclusions regarding value, rent, and entrepreneur's wages, to make them applicable to the facts of modern business life?

POLITICAL ECONOMY AND POLITICAL PHILOSOPHY.

GROUP A.

INTERNATIONAL TRADE.

FIRST PAPER.

Examiner—G. F. SHIRRAS, Esq., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The questions carry equal marks.

Answer question 1 and FIVE other questions.

1. Indicate some of the principal precautions necessary in the use of statistics in discussions relating to foreign trade.

2. Foreign trade is only in a position of equilibrium when comparative costs are identical. Discuss this statement.

3. State the case for and against Preferential Tariffs so far as India is concerned.

4. If Government imposes a duty on commodities imported into India from abroad, under what conditions and to what extent should you expect the ultimate incidence of the duty to fall outside India?

5. Describe shortly, but carefully, the main changes in the Indian tariff since the outbreak of war, and as far as possible indicate critically what the effect has been or is likely to be of such changes.

6. Show by reference to recent events how far foreign exchanges can be said to be "self-adjusting."

7. Discuss the following proposition:—

'If we take care of the imports, the exports will take care of themselves.'

Might the proposition be reversed?

8. Discuss the value of the following as tests of a country's prosperity:—

- (1) exports and imports;
- (2) emigration and immigration;
- (3) Investment of capital abroad.

9. "The excess of exports over imports of merchandise and treasure in 1915-16 was R. 58.25 lakhs, including Government transactions, and R. 61.62 lakhs, excluding Government transactions. The corresponding averages of the preceding three years are R. 23.48 lakhs, and R. 34.07 lakhs." (Review of the Trade of India in 1915-16, Chapter I, p. 8).

Account for the fact that since the outbreak of war India's balance of trade has been and continues to be increasingly favourable.

POLITICAL ECONOMY AND POLITICAL PHILOSOPHY.

GROUP A.

INTERNATIONAL TRADE.

SECOND PAPER.

Examiner—J. C. COYAJI, ESQ., B.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

SIX questions to be answered.

The questions carry equal marks.

1. Comment on the view that "Protection is indirect and delegated taxation." In the light of the canons of taxation discuss the fiscal merits or demerits of Protection.
2. Estimate the general effect of the tariff policy of the United States on the industries and prosperity of the country.
3. On what grounds and how far has the Historical School in Germany thrown its weight on the side of Protection?
4. Give some account of List's views on Free Trade and Protection. How far would List have approved of the present-day protectionist system of Germany?
5. Discuss the connection which exists between the comparative advantage which a nation may possess in international trade and the general range of its (a) money incomes, (b) wages, and (c) domestic prices.
6. How far does Dumping either benefit the exporting country or harm the importing country? Would you advocate the levy of counter-vailing duties on dumped goods?
7. How far does the Infant industry argument apply to (a) agriculture, and (b) new industries in old and fully developed countries?
8. Discuss the effects of the Free Trade Era (1850-1870) on international relations.
9. To what extent has the experience of the present war strengthened the case for either Protection or Free Trade?

POLITICAL ECONOMY AND POLITICAL PHILOSOPHY.

GROUP A.

BANKING AND CURRENCY.

FIRST PAPER.

Examiner—M. SUBEDAR, ESQ., B.Sc.

Only SIX questions to be attempted.

The questions carry equal marks.

1. What principles should guide a banker in the disposition of his working capital? Why is mortgage on real property condemned as a form of investment for a bank?
2. What is meant by banking reserve? Discuss the question of reserve in connection with a centralised banking system like that of England. How does the business activity of a country suffer from inadequate banking reserve?
3. What is a financial crisis? What causes lead up to it and what remedies have been suggested?
4. What are the various factors affecting the value of Government securities on the stock-exchange
 - (a) in normal time;
 - (b) during a war like the present one?
5. What is the position of the Exchange Banks in the Indian money market? What is the nature of their work? When are they in difficulties?
6. Describe the Reserve Treasury System in India. Why was it instituted? How does it affect the Indian money market?
7. What are the causes of the recent bank failures in India? What remedies have been suggested?
8. What is your view regarding the hoarding habits in India and the hoards? What suggestions have been made to "bring out these hoards from their hiding places?"
9. "Commodities pay for commodities." Examine how this is done. What happens when there is an excess of imports or exports? How is the balance then settled?
10. Examine the proposal for a state bank for India. What advantages are expected to result from it? What would be the nature of difficulties to be faced?

POLITICAL ECONOMY AND POLITICAL PHILOSOPHY.

GROUP A.

BANKING AND CURRENCY.

SECOND PAPER.

Examiner—B. MUKHERJEE, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Only SIX questions to be answered.

The questions carry equal marks.

1. Describe the Paper Currency System of India. What are its defects? Discuss the changes recommended by the Chamberlain Commission.
2. Discuss the advantages and disadvantages of the issue of one-rupee notes in India. Do you like to make them a permanent part of our currency system?
3. Discuss the question of the circulation of gold in India in the light of the views of the Fowler Committee and the Chamberlain Commission.
4. What were the effects of the depreciation of silver since 1873 on Indian Trade and Finance?
5. What are token coins? What is their importance? By what means is their value maintained?
6. What is meant by Gold-Exchange Standard? In what ways does it differ from gold and silver monometallism? What are its defects?
7. How is the value of money measured? What are the difficulties in finding out the exact variations in the purchasing power of money?
8. What is an exchange crisis in India? Describe the machinery of "Reverse Bills." On what occasions did the Government of India find it necessary to resort to it?
9. Discuss the fitness of the precious metals to form the material of money. In what ways has silver suffered in this respect since 1873?
10. What criticisms have been urged against the Gold Standard Reserve and what reply can you give to them?
11. "Compensatory Action of the Double Standard."—Explain and illustrate.
12. On what do the gold-points depend? Can Exchange go beyond the gold-points? If so, when and how?

POLITICAL ECONOMY AND POLITICAL PHILOSOPHY.

GROUP A.

MATHEMATICAL ECONOMICS.

FIRST PAPER.

Examiners—{ T. T. WILLIAMS, ESQ., M.A.
 SIR ASUTOSH MUKHERJEE, KT., C.S.I., M.A.,
 D.L.

Candidates are permitted to attempt FIVE questions only.

The questions are of equal numerical value.

1. Define carefully Consumer's Surplus. Express this analytically, and show how it may be represented diagrammatically on the integral demand curve.

Show that for any particular commodity the consumer's surplus is a maximum when the marginal utility is equal to the marginal cost of production. Is this true when more than one commodity is considered?

2. Give the chief features of the integral demand curve. Give an expression for the elasticity of demand in terms of z and x , and show how this may be measured graphically, on the demand curve.

3. State the Quantity theory of money, and show that, if we adopt the expression

$$\frac{\sum p_1 q_1}{\sum p_0 q_1}$$

as our index number of prices, we obtain a similar expression for the index number of the volume of trade.

4. Discuss, with diagrammatic illustrations, the theory of Interest. In what manner would you expect a rise in the rate of interest to affect the supply of capital in a country like Bengal?

5. Two persons meet in an isolated place, one with a quantity of rice and the other with a quantity of sugar. Both require some of both commodities. Show by reference to indifference curves how their bargaining would proceed.

6. Write brief notes on the contributions of Cournot, Jevons, and Marshall to the mathematical expression of economic theory.

7. There are two similar oil-wells in a country which are owned by different individuals. A tariff prevents a foreign trade in oil. Discuss the price and output of oil, (1) if the two owners combine to form a monopoly, (2) if the two compete in the market. Assume the cost of placing the oil upon the market to be proportional to the output.

8. Write a short note on Marshall's proposition respecting the forms of reciprocal demand curves and the stable and unstable equilibria they constitute.

POLITICAL ECONOMY AND POLITICAL PHILOSOPHY.

GROUP A.

MATHEMATICAL ECONOMICS.

SECOND PAPER.

Examiners— $\left\{ \begin{array}{l} \text{T. T. WILLIAMS, ESQ., M.A.} \\ \text{SIR ASUTOSH MUKHERJEE, KT., C.S.I., M.A.,} \\ \text{D.L.} \end{array} \right.$

Candidates are permitted to attempt FIVE questions only.

The questions are of equal numerical value.

1. Show that the integral demand curve is also the locus of the points of contact of the price line, OP, and the indifference curves.

2. An island imports and exports freely both goods and gold, but does not produce gold. Discuss carefully the effect of the following taxes upon prices and trade of that island: (1) A tax upon imported goods; (2) a tax upon imported gold; (3) a tax upon imported gold currency, assuming that there is no mint in the island.

3. "Commercial statistics should therefore be required to separate articles of high economic importance into two categories, according as their current prices are above or below the value which makes a maximum of $p \cdot F(p)$. We see that many economic problems have different solutions according as the article in question belongs to one or other of these two categories."—*Cournot*.

Discuss this and give an example of the kind of problem referred to.

4. Discuss carefully the relationship between the "standard of living," the number of the population of a country, and the "national dividend." Discuss also the effect, upon numbers, of a diversion of an increased portion of the national dividend to education.

5. A monopolist receives a bounty proportional to the quantity of the commodity he exports. His cost of production decreases with his total output, and the monopoly is secure in the home market, although there is competition abroad. Discuss with care the effect of the bounty on home prices, on prices abroad, and upon the total output of the commodity.

6. The commodities A , B and C are required in the manufacture of an article M only, and are supplied at constant prices. Let p_a , p_b , p_c be these prices and P the price of the finished article, and let e_a , e_b , e_c and E be the respective elasticities of demand. Show that if prices p_b and p_c remain constant then

$$\frac{e_a}{E} = \frac{p_a}{P}.$$

Using this theorem, discuss the possibility of raising the wages of certain classes of workers much above the normal.

7. Describe clearly how the social income, or national dividend, may be estimated: (a) in a country like Great Britain, (b) in a district in India.

8. "Wages do not vary in proportion to the productiveness of labour and are not independent of the disposable capital."

Examine and illustrate.

POLITICAL ECONOMY AND POLITICAL PHILOSOPHY.

GROUP A.

EIGHTH PAPER.

ESSAY.

Examiner—J. C. COYAJI, ESQ., B.A.

Candidates are required to give their answers in their own words as far as practicable.

Write an Essay on one of the following subjects :—

- (1) Nationalisation of Railways.
- (2) Finance and War. •
- (3) Commercial Treaties.
- (4) "Changes in wages should follow changes in prices."
- (5) "Every man's income is exactly equal to his contribution to production."

POLITICAL ECONOMY AND POLITICAL PHILOSOPHY.

GROUP B.

FIFTH PAPER.

Examiner—P. MUKHERJEE, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Answer SIX questions only.

The questions are of equal numerical value.

1. Discuss, from the modern point of view, any one of the following Aristotelian propositions :—

(a) In the order of Nature, the State is prior to the household or the individual.

(b) Citizens then we may define as those who participate in judicial and deliberative office.

(c) That the education of the young is a matter which has a paramount claim upon the attention of the legislator will not be disputed.

(d) The best political association is the one which is controlled by the middle class.

2. "The conception of the disappearance of a living political theory in the Middle Ages is fundamentally wrong." (*Carlyle*). Examine this statement.

3. Trace the new channels of political thought opened out by the Reformation.

4. "Our generation has seen one further step taken in the extension of the principles of Machiavelli." (*Figgis*). Fully elaborate this statement.

5. (a) "The influence of Hobbes upon Rousseau was very marked, and very singular." (*Morley*). Prove this proposition.

(b) "The beginning of politic society depends upon the consent of the individuals to join into and make one society, who, when they are thus incorporated, might set up what form of government they thought fit." (*Locke*). Carefully bring out the full implications of this statement.

6. Review the history of the theory of Separation of Powers.

7. Discuss the fundamental differences between the Utilitarian and Idealist Schools of English political philosophy.

8. How far has the progress of democratic theory kept pace with the progress of democratic institutions in England during the last 150 years?

9. Trace the history of the theory of "the sovereignty of the people" up to the 18th century.

10. Write a short essay on "The best form of government conceived by the great political philosophers."

POLITICAL ECONOMY AND POLITICAL PHILOSOPHY.

GROUP B.

INTERNATIONAL LAW.

FIRST PAPER.

Examiner—S. C. CHAKRABARTI, Esq., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Candidates are permitted to attempt SIX questions only.

The questions are of equal numerical value.

1. What are the sources of International Law? Form an accurate estimate of the part played by Roman Law in the development of Public International Law.

2. Give a critical account of the writings of Grotius and Vattel on International Law, and characterise the three schools of Naturalists, Positivists, and Grotians.

3. Give some historical examples of claims to maritime sovereignty and sketch the history of the present rule of the freedom of the High Seas.

4. Define 'International rivers.' Give the opinions of accredited authors on the question of free navigation on International rivers and state the rules which apply to the navigation of the chief rivers of Europe and America.

5. "The moment a foreigner becomes naturalised his allegiance to his native country is severed for ever. He experiences a new political birth. A broad and impassable line separates him from his native country." Examine this statement with special reference to the practice of modern states regarding subjects naturalised abroad.

6. Explain: (a) Spheres of influence, (b) Leases of territory by one state to another, (c) Occupation and Administration of the territory of one state by another in time of peace. Give illustrations.

7. Trace the history of the Institution of Consuls. "The general rule about consuls is that they are commercial, not diplomatic agents." Comment on this passage, explaining carefully what exceptions there are to the general rule set forth in it.

8. "When a conflict arises between the right of self-preservation of a state and the duty of that state to respect the right of another, the right of self-preservation overrides this duty." Examine this doctrine and indicate what is, in your opinion, the true international right of self-preservation by reference to (a) the case of the *Caroline* (1838), (b) the seizure of the Danish fleet by England in 1807, and (c) the case of the *Virginia* (1873).

9. Sketch the outline of a thesis on the Hague Peace Conferences of 1899 and 1907, the results obtained, the principles applied, and the influences felt.

10. Examine the character of 'Intervention' from the point of view of International Law. Discuss whether a state is justified in intervening (a) to preserve rights of succession, (b) to put down a popular movement, (c) to check religious oppression.

11. State and annotate two of the following cases:—

- (1) *Reg. v. Lesley* (1860).
- (2) *U.S. v. Rauscher* (1866).
- (3) *Mugrove v. Chun Teeong Toy* (1891).
- (4) *The Charkieh* (1873).
- (4) *In Re Bourgoise* (1889).
- (6) *The United States of America v. Prileau* 1869).

12. State and annotate two of the following cases:—

- (1) The case of the General Armstrong (1851).
- (2) *The United States v. Quincy* (1832).
- (3) The case of the Trent (1862).
- (4) The Springbok (1863).

POLITICAL ECONOMY AND POLITICAL PHILOSOPHY.

GROUP B.

INTERNATIONAL LAW.

SECOND PAPER.

Examiner—A. E. BROWN, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Only SIX questions to be attempted.

Candidates are expected, where necessary, to critically apply leading cases.

1. Argue, from case law, the common law doctrine of the criterion of enemy character, both as regards individuals and corporations. To what extent (if any) has that doctrine been modified by British emergency legislation?

2. Discuss fully the question as to how far orders in Council bind British Prize Courts.

3. State what you know of the controversy between Germany and America concerning the use of submarines in war.

4. Discuss fully the question as to how far the restrictions imposed by the Declarations of Paris (1856) and London (1909) on the use of sea power in war have been removed so far as British naval activity in the present war is concerned by recent orders in Council.

5. Sketch the history of the theory of blockade. What extension has that theory undergone in the course of the present war?

6. Write a historical note on Defensively Armed Merchant Ships and Submarine Warfare.

7. What application has been made of the theory of continuous transport in the present war?

8. Write notes on the doctrine of Reprisals.

Discuss fully the difficulties attending the application of reprisals and quote instances pertaining to the present war.

9. W. E. Hall wrote in 1889 as follows:—

“It is a matter of experience that times in which international law has been seriously disregarded have been followed by periods in which the European conscience has done penance by putting itself under straighter obligations than those which it before acknowledged. There is no reason to suppose that things will be otherwise in the future. I therefore look forward with much misgiving to the manner in which the next great war will be waged, but with no misgiving at all as to the character of the rules which will be acknowledged ten years after its termination by comparison with the rules now considered to exist.”

Comment on this view.

10. Discuss the possibilities of

(a) Arbitration;

(b) Diplomacy;

as alternatives to war.

11. "War is not a relation of man to men, but of State to State, in which individuals are enemies only accidentally, not as men nor even as citizens but as soldiers, not as members of their country but as its defenders.

In fact a State can only have other States for enemies and not men, seeing that no true relation can be established between things of different natures." (*Rousseau*).

Criticise this point of view.

12. State and annotate *two* of the following cases:—

The Dacia (1915).

The Carthage (1913).

The China (1916).

The Sally (1795).

The Atalanta (1808).

POLITICAL ECONOMY AND POLITICAL PHILOSOPHY.

GROUP B.

COMPARATIVE STUDY OF SOCIAL INSTITUTIONS.

FIRST PAPER.

Examiner—R. N. GILCHRIST, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

FIVE questions only to be attempted.

The questions are of equal numerical value.

1. What is the province of Sociology? Is Sociology the sum of the Social sciences?

2. What is meant by super-organic Evolution? Comment on the statement that the Spencerian Sociology is "to a large extent a physical philosophy of society, notwithstanding its liberal use of biological and psychological data."

3. Give, and remark on, Comte's classification of the sciences.

4. Give, in general terms, Spencer's reasons for regarding society as an organism. How far do you think his theory justifiable?

5. Give Spencer's classification of social types and constitutions.

6. Define zoogenic, anthropogenic, ethnogenic and demogenic Sociology. Show the importance of zoogenic association in relation to anthropogenic association.

7. Write a short essay on Imitation as a factor in Social Evolution.

8. What do you understand by the Social Mind? Trace the chief stages of its Evolution.

9. Summarise the salient features of Animism, and show what claims Animism has to be the forerunner of religion.

10. Show how Mythology can give a key to the interpretation of social phenomena. How would you proceed to examine myths for this purpose?

POLITICAL ECONOMY AND POLITICAL PHILOSOPHY

GROUP B.

COMPARATIVE STUDY OF SOCIAL INSTITUTIONS.

SECOND PAPER.

Examiner—S. C. CHAKRABARTI, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Only SIX questions to be attempted.

The questions carry equal marks.

1. Examine the nature of the moral ideal which Christianity introduced, and also the methods by which it attempted to realise it. Contrast the Pagan and Christian ideal of woman, and estimate the influence of Christianity on the position of women.

2. Show how the Rationalistic movement in Europe eliminated the influence of Theology from Politics and secularised the basis of Authority.

3. "Among certain races, at certain stages of evolution, some social institutions which we believe to be beneficial have partially rested on a basis of superstition." Explain and illustrate this statement.

4. Give a short account of the various types of caste to be found in India. "All over India at the present moment there is going on a process of the gradual and insensible transformation of tribes into castes." Discuss.

5. Enumerate the main physical types into which the people of India may be divided, and briefly describe the leading characteristics of each type. How do you account for the absence of one national type in India?

6. Critically examine the theories of Mr. Nesfield and Sir Herbert Risley about the origin of infant marriage in India. Discuss the physiological consequences of this custom, and indicate the extent to which it prevails in India.

7. Write a note on the conditions existing in India with regard to each of the following:—(a) proportion between the sexes, (b) proportion between rural and urban population, (c) rate of the increase of population.

8. Expound the fundamental principles of belief and social aims of the Arya Samáj, and compare them with those of the Bramho Samáj.

9. Discuss the significance of the following statements:—

(a) Among the Khonds the more distinguished fathers of the tribe are all remembered by the priests, their sanctity growing with the remoteness of the period of their deaths.

(b) When the Prince of Wales was in India, Hindu poets were apostrophizing him as an Incarnation of the Deity.

(c) In India not only does the husbandman pray to his plough, the fisher to his net, the weaver to his loom; but the scribe adores his pen and the banker his account-books.

(d) Among the Santals, when a girl marries, she must give up her kindred and its gods for those of her husband.

POLITICAL ECONOMY AND POLITICAL PHILOSOPHY.

GROUP B.

COMPARATIVE STUDY OF POLITICAL INSTITUTIONS.

FIRST PAPER.

Examiner—E. A. HORNE, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The questions carry equal marks.

Not more than SIX questions to be attempted.

1. Estimate the relative importance of economic and religious factors in the formation of early political institutions.

2. Sketch the main features of pure democracy at Athens; and write brief critical notes on (a) ostracism; (b) use of the lot; (c) payment for civic services; (d) the *Graphe Paranomon*.

3. What attempts were made in Greece to extend political sovereignty beyond the limits of the city-state, and with what results?

4. Describe the composition and powers of the Roman Senate, and explain its ascendancy during the later Republic. Was there any body similarly constituted at Athens, and what place did it occupy in the state?

5. Compare and contrast the position and functions of:—(a) the ephors; the tribunes; the Council of Ten; (b) the tyrant; the *aesymneta*; the dictator.

6. Trace the influence of the Church on the transition from status to contract in the Middle Ages.

7. Write notes on (a) the blood feud; (b) the *wergild* system; (c) the king's peace. What advance is evident in the conception of social justice at these successive stages?

8. Show in what main directions the political institutions of England in the Middle Ages differed from those of continental Europe; and indicate the constitutional importance of these differences.

9. What is "manicipation," and what principles of social organization does it reflect? Indicate some of the ways in which the disposal of property by will or conveyance was gradually freed, and with what social results.

POLITICAL ECONOMY AND POLITICAL PHILOSOPHY.

GROUP B.

COMPARATIVE STUDY OF POLITICAL INSTITUTIONS.

SECOND PAPER.

Examiner—E. A. HORNE, ESQ., M.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

*Not more than SIX questions to be attempted, of which number 12 must be
one. Number 12 will carry 25 marks, each of the others 15 marks.*

1. "The one prevailing evil of democracy is the tyranny of the majority, or rather of that party, not always the majority, that succeeds, by force or fraud, in carrying the elections."

What remedies have been tried or suggested?

2. What have been the main political parties in France since 1871? Why are they numerous?

3. Sketch the main features of the Italian Constitution.

4. The German Empire is said to enjoy large legislative and small executive powers. Explain and illustrate the statement.

5. "The phenomena of municipal democracy in the United States are the most remarkable and least laudable which the modern world has witnessed; and they present some evils which no political philosopher, however unfriendly to popular government, appears to have foreseen, evils which have scarcely shewed themselves in the cities of Europe, and unlike those which were thought characteristic of the rule of the masses in ancient times"

Give some account of the evils to which Lord Bryce alludes. What in your opinion is the remedy for them?

6. "There are few historical errors more serious than the assumption that popular governments have always been legislating governments." Explain and comment on this remark.

7. What is a Referendum? Give some account of its working in Switzerland and elsewhere.

8. "In America the great moving forces are the parties. The government counts for less than in Europe, the parties count for more; and the fewer have become their principles and the fainter their interest in those principles the more perfect has become their organization."

Explain this statement and give a short history of the Republican and Democratic parties.

9. Explain the exact constitutional position of the Senate and the Supreme Court in the United States.

10. Give a short account of the Constitution of Austro-Hungary, showing the main difficulties that had to be overcome and the provision made for meeting them.

11. What is your estimate of Napoleon as a constitutional reformer? What traces of his influence remain?

12. Write a short essay on the influence of the English constitution on those of other States.

POLITICAL ECONOMY AND POLITICAL PHILOSOPHY.

GROUP B.

EIGHTH PAPER.

ESSAY.

Examiner—K. ZACHARIAH, ESQ., B.A.

*Candidates are required to give their answers in their own words
as far as practicable.*

Write an essay on any *one* of the following subjects:—

- (1) Theories of the size of the State,
- (2) The Influence of Law on Political Thought,
- (3) Machiavellianism,
- (4) The Case against Second Chambers,
- (5) The Interaction of War and Democracy on each other.

M.A. AND M.Sc. EXAMINATIONS.

1917.

PURE MATHEMATICS.

FIRST PAPER.

Examiner—B. M. SEN, ESQ., M.Sc.

*Candidates are permitted to attempt only SEVEN questions, but not more
than FOUR questions from either group.*

The questions are of equal numerical value.

GROUP A.

1. Prove that

$$mx^{m-1}(x-1) > x^m - 1 > m(x-1),$$

unless m lies between 0 and +1, in which case

$$mx^{m-1}(x-1) < x^m - 1 < m(x-1),$$

x being positive and $\neq 1$.

2. If p and q be constant integers, show that

$$\lim_{m \rightarrow \infty} \left\{ \frac{1}{m} + \frac{1}{m+1} + \dots + \frac{1}{pm+q} \right\} = \log p.$$

3. Discuss the convergency of the series

$$1 + \frac{m}{1} + \frac{m(m-1)}{2!} + \dots + \frac{m(m-1) \dots (m-n+1)}{n!} + \dots,$$

where m is any real quantity.

4. Explain what is meant by the assertion that a particular series

$$\sum_{n=1}^{\infty} u_n(x),$$

converges uniformly in a given interval (a, b) of the variable x .

If
$$u_n(x) = \frac{x}{(nx+1)\{(n-1)x+1\}},$$

show that the series converges non-uniformly in any interval containing the point $x=0$.

5. Show that

$$\sum_{n=1}^{\infty} \frac{1}{n(4n^2-1)^2} = \frac{3}{2} - 2 \log 2.$$

6. Assuming that, when N is a positive integer which is not a perfect square, \sqrt{N} can be expressed as a recurring continued fraction in the form

$$a + \frac{1}{c_1 + \frac{1}{c_2 + \frac{1}{c_3 + \dots + \frac{1}{c_{s-1} + \frac{1}{c_s + \frac{1}{c_1 + \dots}}}}}}$$

prove that $c_s = 2a$ and that

$$c_{s+r} = c_r \quad (r = 1, 2, 3, \dots).$$

If $\frac{p}{q}$ is the convergent formed by taking the quotients up to c_{s-1} in any of its positions, show that

$$p^2 - Nq^2 = \pm 1.$$

GROUP B.

1. Prove that

$$\cos x = \prod_{n=0}^{\infty} \left\{ 1 - \frac{4x^2}{(2n+1)^2\pi^2} \right\},$$

and test the convergence of the Infinite Product.

Explain why it is necessary to introduce the Exponential Factor in the form

$$\cos x = \prod_{n=-\infty}^{\infty} \left\{ 1 - \frac{2x}{(2n+1)\pi} \right\} e^{\frac{2x}{(2n+1)\pi}}.$$

2. If $|x| < 1$, prove that

$$\frac{1-x^2}{1-2x \cos \theta + x^2} = 1 + 2x \cos \theta + 2x^2 \cos 2\theta + \dots;$$

$$\frac{(1-x^n) \cos \theta}{1-2x^2 \cos 2\theta + x^4} = \cos \theta + x^2 \cos 3\theta + x^4 \cos 5\theta + \dots;$$

and

$$\frac{\cos 11\theta}{\cos \theta} = \gamma^5 - \gamma^4 - 4\gamma^3 + 3\gamma^2 + 3\gamma - 1,$$

where

$$\gamma = 2 \cos 2\theta.$$

3. (a) Find the values of

$$\sum_{n=1}^{\infty} \frac{1}{n^2} \text{ and } \sum_{n=1}^{\infty} \frac{1}{n^4}.$$

- (b) If 2, 3, 5, ... are all the prime numbers, show that

$$\left(1 - \frac{1}{2^2}\right) \left(1 - \frac{1}{3^2}\right) \left(1 - \frac{1}{5^2}\right) \dots = \frac{6}{\pi^2},$$

Or,

$$\frac{2^2}{2^2+1} \cdot \frac{3^2}{3^2+1} \cdot \frac{5^2}{5^2+1} \dots = \frac{\pi^2}{15}.$$

4. (a) In a spherical triangle,

$$\cot a \sin b = \cot A \sin C + \cos b \cos C.$$

- (b) If the external bisector of the angle A cuts CB produced at D at an angle θ , show that

$$\cot BD = \frac{\sin b - \cos a \sin c}{\sin a \sin c}.$$

Or,

$$\cos \theta = \frac{\cos B + \cos C}{2 \sin \frac{A}{2}}.$$

5. Prove that

$$\frac{\sin(c - \frac{1}{2}E)}{\sin \frac{1}{2}E} = \cot \frac{a}{2} \cot \frac{b}{2}.$$

If the two sides a, b be supplementary, and E' the spherical excess of the Polar triangle,

$$\sin \frac{1}{2}E' = \sin a \cos \frac{1}{2}C.$$

6. Find the radical circle of two small circles on a sphere.

If two small circles touch two other small circles, a centre of similitude of one pair lies on the radical circle of the other pair.

SECOND PAPER.

Examiner—RAI ABINASHCHANDRA BASU, BAHADUR, M. A.*Answer question 10 and FIVE of the remainder.**The questions carry equal marks.*

1. Shew how to obtain an equation the roots of which are the ratios of any two roots of a given general equation of the n^{th} degree. 15
Obtain the result in the particular case of the cubic

$$x^3 + qx + r = 0$$

and from it deduce the equation whose roots are

$$\frac{\beta}{\gamma} + \frac{\gamma}{\beta}, \quad \frac{\gamma}{\alpha} + \frac{\alpha}{\gamma}, \quad \frac{\alpha}{\beta} + \frac{\beta}{\alpha},$$

where α, β, γ are the roots of the cubic.

2. Shew how you can resolve a quartic into its quadratic factors. 15
If $\alpha, \beta, \gamma, \delta$ are the roots of the biquadratic, form the equation whose roots are

$$(\beta\gamma - \alpha\delta)(\beta + \gamma - \alpha - \delta), \quad (\gamma\alpha - \beta\delta)(\gamma + \alpha - \beta - \delta), \\ (\alpha\beta - \gamma\delta)(\alpha + \beta - \gamma - \delta).$$

3. Every rational symmetric function of the roots of an algebraic equation can always be expressed rationally in terms of the coefficients. 15
Prove this.

If the degree of $\phi(x)$ does not exceed $n-2$, prove that

$$\sum_{r=1}^{r=n} \frac{\phi(a_r)}{f'(a_r)} = 0,$$

where

$$\sum_{r=1}^{r=n}$$

denotes the sum obtained by giving r all values from 1 to n inclusive.

4. What is a reciprocal determinant? Prove that a minor of the order n formed out of the inverse constituents is equal to the complementary of the corresponding minor of the original determinant multiplied by a factor, which you are to determine. 15

Evaluate, expressing in its simplest form,

$$\begin{vmatrix} \alpha & \alpha & \alpha & \alpha & \dots \\ -\alpha & \alpha & \alpha_{23} & \alpha_{24} & \dots \\ -\alpha & -\alpha & \alpha & \alpha_{34} & \dots \\ -\alpha & \dots & \dots & \alpha & \\ -\alpha & -\alpha & \dots & \dots & \alpha \end{vmatrix}$$

where the elements of the first row and the principal diagonal are all " α ," and those below the principal diagonal are all " $-\alpha$."

5. "If the Resultant of two equations be given, shew that" 15

$$^a \frac{dR}{da_p} = \frac{dR}{d a_{p+1}}$$

where a is the common root, and R the resultant."

Form the equation whose roots are

$$\phi(a_1), \phi(a_2) \dots \phi(a_n),$$

where

$$a_1, a_2, \dots a_n$$

are the roots of $f(x)=0$, the resultant of $f(x)$ and $\phi(x)$ being given.

6. Prove that a homogeneous function of the second degree in n variables with real coefficients can always be expressed as the sum of ' n ' squares. 15

In how many ways can it be so done? Find the restriction, if any, as to the number of coefficients having a given sign (affecting these squares).

Reduce two quadrics in three variables to the sum of the same three squares; and give its geometrical interpretation.

7. Shew that any symmetrical function of the six cross-ratios in an invariant for the tetrad $(ABCD)$, and obtain the equation whose roots are the six anharmonic ratios in the case of the general quartic. 15

8. "If ϕ is a homogeneous function of the differences of the roots of a quantic U , the covariant derived from it may always be written under the form 15

$$\frac{U}{x^{2k}} \phi \left(\frac{a_1 x}{a_1 - x}, \frac{a_2 x}{a_2 - x} \dots \frac{a_n x}{a_n - x} \right)$$

where w is the order and k the weight of ϕ ." Establish the above proposition and from it derive the properties of covariants and invariants of a quantic.

Obtain the *syzygy* among the concomitants of a quartic.

9. "The reduction of the cubic to its canonical form x^3+y^3 is unique. On the other hand the reduction of the quartic to its canonical form $x^4+y^4+6mx^2y^2$ is sixfold." 15

Establish the truth of the above statement and obtain the sextic in ' m .'

10. Write after Elliot a short essay on "Gradients." 25

THIRD PAPER.

Examiner—BABU SURENDRAMOHAH GANGULI, M.Sc.

Candidates are required to give their answers in their own words as far as practicable.

Candidates are permitted to attempt SIX questions only, of which not more than FOUR should be selected from the same group.

The questions carry equal marks.

GROUP A.

1. Define the *cross-ratio* of a pencil of lines, and determine its value for the pencil

$$y = m_1x, y = m_2x, y = m_3x, y = m_4x.$$

Prove that the two pencils

$$a_0x^4 + 4a_1x^3y + 6a_2x^2y^2 + 4a_3xy^3 + a_4y^4 = 0$$

and

$$a_0y^4 + 4a_1y^3x + 6a_2y^2x^2 + 4a_3yx^3 + a_4x^4 = 0$$

have equal cross ratios.

2. Prove that there are three points on a conic whose osculating circles pass through a given point on the curve and that these points lie on a circle passing through the point, and form a triangle of which the centre of the curve is the intersection of bisectors of sides.

Also show that if ρ_1, ρ_2, ρ_3 be the radii of curvature at these points,

$$\rho_1^{\frac{2}{3}} + \rho_2^{\frac{2}{3}} + \rho_3^{\frac{2}{3}} = \frac{3(a^2 + b^2)}{2a^{\frac{2}{3}}b^{\frac{2}{3}}}.$$

a and b being the semi-axes.

3. Show that the foci of the conic

$$ax^2 + 2hxy + by^2 + 2fy + 2gx + c = 0$$

are given by

$$C(x^2 - y^2) + 2Fy - 2Gx + A - B = 0,$$

$$Cxy - Fx - Gy + H = 0,$$

and deduce or prove directly that every conic drawn through the four foci is a rectangular hyperbola.

4. For the system of conics touching four given lines, show that the locus of the centres is a straight line. Hence, or otherwise, establish the following:—

At a point P on a conic, whose centre is C , the parabola of closest contact is described. The axis of the parabola will be parallel to PC .

5. Explain briefly the general principles of reciprocation, and show that the reciprocal of a conic with regard to a point on the director circle is a rectangular hyperbola.

Can you use this fact to show that any two conics can, in general, be both reciprocated into rectangular hyperbolas?

6. (a) Show how a system of conics having a common focus and a directrix can be projected into concentric circles.

Is the projection a real one?

(b) Prove and generalise by projection one of the following theorems:—

(1) The circumcircle of a triangle circumscribing a parabola passes through the focus of the parabola.

(2) The locus of the centre of a rectangular hyperbola with respect to which a given triangle is self-conjugate is the circumcircle.

7. If $S=0$ and $S'=0$ be the equations of two conics, prove that the condition that $S+kS=0$ may become two right lines can be written

$$\Delta + ek + e'k^2 + \Delta'k^3 = 0,$$

where the coefficients are *invariants* in relation to the two conics.

Examine the geometrical significance of the equation $e=0$, and prove that if $e=0$ for the conics S and S' , then S and S' can be projected into a circle and a rectangular hyperbola, the latter passing through the centre of the circle.

GROUP B.

8. Define the *deficiency* of a curve, and show that, if the deficiency be zero, the co-ordinates of any point on the curve can be expressed as rational algebraic functions of a variable parameter.

Is the converse theorem also true?

9. (a) Explain briefly Plücker's conception of the foci of a curve, and show that a curve of the n^{th} class has n^2 foci, of which *only* n are real, if the curve is real.

(b) Prove that if a curve be inverted from any point, the inverse points of the foci of the original curve are the foci of the inverse curve.

10. Prove that a non-singular curve has $3n(n-2)$ points of inflexion, and that these points retain their property when the curve is projected in any manner.

11. Find the polar conic of a given point with regard to a cubic curve, given by the general equation.

Consider, in particular, the cubic

$$x^3 + y^3 = a(x^2 + y^2),$$

and show that the polar conic will be a circle, if the point lies on the line $x=y$.

12. Prove that the inverse of a conic with respect to a point on the curve is a *circular* cubic, whose asymptote is parallel to the tangent to the conic at the centre of inversion.

Prove further that if the cubic be inverted from the point O where the asymptote cuts the curve, the point O will be a point of inflexion on the inverse curve.

13. Taking the three nodes as the vertices of the triangle of reference, show that the equation of a trinodal quartic can be expressed in the form

$$a \frac{1}{x^2} + b \frac{1}{y^2} + c \frac{1}{z^2} + 2f \frac{1}{yz} + 2g \frac{1}{zx} + 2h \frac{1}{xy} = 0.$$

Also prove that the six nodal tangents touch a conic.

14. (a) What is a *bicircular quartic*? Form its general Cartesian equation.

(b) Show that a bicircular quartic has sixteen foci and these lie on four circles, four on each circle.

FOURTH PAPER.

Examiner—DR. HARIDAS BAGCHI, M.A., PH.D.*Candidates are required to give their answers in their own words as far as practicable.**Not more than SIX questions to be attempted.**The questions are of equal numerical value.*

1. Explain how a pair of straight lines may be reduced to the form

$$\left. \begin{aligned} y &= x \tan \alpha, \\ z &= c, \end{aligned} \right\} \quad \left. \begin{aligned} y &= -x \tan \alpha, \\ z &= -c. \end{aligned} \right\}$$

Prove that the equation of any line meeting these lines may be put in the form

$$\frac{mx - \lambda \cos \theta}{m \sin \theta} = \frac{y - m\lambda \sin \theta}{\cos \theta} = \frac{\lambda z}{c},$$

and that if P, Q be the points at which the last line meets the first two and $PQ = 2c \sec \beta$, then the equation of the line may be put in the form

$$\left. \begin{aligned} x \cot \beta &= c \cos \theta + z \cot \alpha \sin \theta, \\ y \cot \beta &= c \sin \theta + z \tan \alpha \cos \theta. \end{aligned} \right\}$$

Interpret the result geometrically.

2. If
- $ax^2 + by^2 + cz^2 + 2fyz + 2gzx + 2hxy = 0$

represent two planes, find their lines of intersection and the inclination between those lines.

Find also the condition that

$$ax^2 + by^2 + cz^2 + 2fyz + 2gzx + 2hxy + 2a'x + 2b'y + 2c'z + d = 0$$

should represent two planes, and in this case find their lines of intersection as well as the inclination between the lines.

3. Discuss the nature of a plane section of a given conicoid, and obtain conditions that a section may be (i) a circle, (ii) a pair of straight lines. Also find the twelve planes whose sections are both circles and pairs of straight lines.

4. Explain how you would transform the general equation

$$(a, b, c, f, g, h)(x, y, z)^2 = 1$$

to the form

$$ax^2 + \beta y^2 + \gamma z^2 = 1.$$

Show that the same transformation changes

$$(A, B, C, F, G, H)(x, y, z)^2 = 1$$

into

$$\frac{x^2}{a} + \frac{y^2}{\beta} + \frac{z^2}{\gamma} = 1,$$

where $A \equiv bc - f^2$, etc.

Find the equation of conicoids confocal to

$$(a, b, c, f, g, h)(x, y, z)^2 = 1.$$

5. Show that the quadric $ax^2 + by^2 + cz^2 = 1$ has an infinite number of foci lying on three conics. Find, in particular, those foci which are situated on the surface, and show that each of them is an umbilic.

6. Prove that, on every conicoid, there are two systems of generators, and that these are carried over into generators, when the surface is reciprocated in any manner.

7. Prove that the lengths of the principal axes of the section

$$lx + my + nz = p$$

of the cone

$$(a, b, c, f, g, h)(x, y, z)^2 = 1$$

are given by the equation

$$\begin{vmatrix} a - \frac{\sigma}{\gamma^2} & h & g & l \\ h & b - \frac{\sigma}{\gamma^2} & f & m \\ g & f & c - \frac{\sigma}{\gamma^2} & n \\ l & m & n & o \end{vmatrix} = 0,$$

where

$$p^2\sigma = \begin{vmatrix} a & h & g & l \\ h & b & f & m \\ g & f & c & n \\ l & m & n & o \end{vmatrix}$$

If the above plane cuts

$$(a, b, c, f, g, h)(x, y, z)^2 = 1$$

in a parabola, find the direction of the axis of the parabola.

8. Define the terms rectifying developable, rectifying line in connection with any curve in space, and prove that the rectifying line makes with the binormal an angle χ , where

$$\tan \chi = \frac{\rho}{\sigma},$$

and that the inclination of two consecutive rectifying lines is $d\chi$. Prove also the rectifying line meets the edge of the rectifying developable at a distance ξ from the original curve, where

$$\xi \cdot \frac{d\chi}{ds} = \cos \chi,$$

and that the curvature and torsion of the edge are

$$\frac{\cos \chi}{\xi} \frac{d\xi}{ds} + \sin \chi \quad \text{and} \quad \frac{\sin \chi}{\rho} \frac{d\xi}{ds} + \sin \chi$$

respectively.

9. Define the terms integral curvature, average curvature, specific curvature in connection with a surface. What is Gauss' measure of curvature?

Determine the measure of curvature at any point of

$$f(x, y, z) = 0.$$

A surface is generated by the revolution of a parabola about its directrix. Show that one principal radius of curvature at any point is double the other.

10. Form the equation of the osculating plane at any point of a curve in space, and deduce that the points, where the osculating planes have four-pointic contact with the curve, are given by

$$\begin{vmatrix} x' & y' & z' \\ x'' & y'' & z'' \\ x''' & y''' & z''' \end{vmatrix} = 0,$$

the dashes denoting differential coefficients with regard to the arc.

11. The parameters of a point on a surface being p, q , express the equations of the null lines and of the asymptotic lines in the respective forms

$$\begin{aligned} E dp^2 + 2F dp dq + G dq^2 &= 0, \\ L dp^2 + 2M dp dq + N dq^2 &= 0, \end{aligned}$$

where the coefficients denote the *fundamental* magnitudes.

Hence or otherwise derive the conditions for a sphere, viz.

$$\frac{E}{L} = \frac{F}{M} = \frac{G}{N}.$$

12. In the parametric representation of a surface, find the conditions that the parametric curves may be lines of curvature.

For the surface given by

$$\begin{aligned} x &= p^2 + aq^2, \\ y &= p^2 + bq^2, \\ z &= p^2 + cq^2, \end{aligned}$$

verify that the curves $p = \text{const.}$ and $q = \text{const.}$ will be lines of curvature, provided that

$$a + b + c = 0.$$

FIFTH PAPER.

Candidates are permitted to answer only EIGHT questions, which are all of equal numerical value.

Candidates are required to give their answers in their own words as far as practicable.

Examiner—BABU HARIPRASANNA BANERJEE, M.Sc.

1. In the inverse of a curve of the n^{th} degree show that the origin is a multiple point of the n^{th} order, and that the n tangents at that point are parallel to the asymptotes of the original curve.

2. If r , p , ρ be respectively the radius vector, the perpendicular from the origin on the tangent, and the radius of curvature at any point of a curve, show that the radius of curvature at the corresponding point of the reciprocal polar with regard to the origin is

$$\frac{k^2 r^3}{p^3 \rho},$$

where k^2 is the constant of reciprocation. Hence show that the reciprocal of a circle is a conic with the origin as focus.

3. Trace the curve

$$r = \frac{ae^2}{e^2 - 1},$$

and show that it has a point of inflexion at $e^3 = 3$; find also its asymptotes and asymptotic circle, and the nature of the origin.

4. Prove that if two tri-confocal Cartesians intersect, they cut each other orthogonally.

5. Find the axes of a central quadric from the consideration that the vertices are the points from which the distance to the centre is a maximum or minimum.

6. If V_0 be a solid harmonic of degree zero, prove that

$$r^{2n-1} \frac{d^n V_0}{dx^n}$$

is also a solid harmonic.

Hence prove that

$$\frac{\sin n\phi}{(x^2 + y^2)^2} \frac{d^m}{dx^m} (r^{2n-1})$$

is a harmonic function.

7. If
$$z = x\phi\left(\frac{y}{x}\right) + \psi\left(\frac{y}{x}\right),$$

show that

$$x^2 r + 2xy s + y^2 t = 0,$$

where

$$r \equiv \frac{\partial^2 z}{\partial x^2}, s \equiv \frac{\partial^2 z}{\partial x \partial y}, t \equiv \frac{\partial^2 z}{\partial y^2}.$$

8. Give a rigorous proof of Lagrange's form of the Remainder of Taylor's Series.

9. Prove that

$$\int_0^{\pi} \sin^{2m-1} \theta \cos^{2n-1} \theta d\theta = \frac{\Gamma(m) \Gamma(n)}{2 \Gamma(m+n)}.$$

10. Prove that

$$\int_0^{\infty} \frac{\sin x}{x} dx = \frac{\pi}{2},$$

and deduce the value of

$$\int_0^{\infty} \left(\frac{\sin x}{x} \right)^2 dx.$$

11. Invert the order of integration in, and evaluate,

$$\int_{-1}^{+1} \int_{\sqrt{4-y^2}}^{y\sqrt{3}+2\sqrt{3}} (y^3-2x^2y) dx dy.$$

12. Find either (1) the area of the surface

$$x^2 + y^2 + z^2 = \frac{a^2 b^2 (x^2 + y^2) z}{a^2 x^2 + b^2 y^2};$$

Or,

(2) the volume of the solid bounded by the same surface.

13. The rectification of a curve of the type $y = Ax^u$ leads to an integral of a binomial differential. Discuss the cases of integrability.

14. Prove that the tractrix is an involute of the catenary and has a cusp. Show also that the product of the radius of curvature and the normal is constant.

15. Find the mean distance of points on the surface of a square from a corner of the square.

16. Prove that

$$2\pi \phi(x) = \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \phi(t) \cos u(t-x) du dt.$$

Or,

Find a function which shall be unity for all values of x between ± 1 , and zero for all other values of x .

SIXTH PAPER.

Candidates are permitted to attempt only EIGHT questions, which are all of equal numerical value.

They are required to give their answers in their own words as far as practicable.

Examiner—BABU NARENDRAKUMAR MAJUMDAR, M.A.

1. Obtain the complete primitive and the singular solution of

$$p^2y^2 - 2xyp - x^2 + 2y^2 + a^2 = 0.$$

2. Solve by the principle of duality or otherwise :—

$$(y - px)x = cy.$$

3. Solve completely—

$$x^2 \frac{d^2y}{dx^2} - (2m-1)x \frac{dy}{dx} + (m^2+n^2)y = n^2x^m \log x.$$

4. Find the orthogonal trajectory of

$$x^3 + y^3 = 3axy.$$

5. The equation

$$x^3 \frac{d^3y}{dx^3} - 4x^2 \frac{d^2y}{dx^2} + x(8+x^2) \frac{dy}{dx} - 2(4+x^2)y = 0$$

has

$$x \sin x \text{ and } x \cos x$$

as particular integrals; find the primitive.

6. If P_n is the coefficient of z^n in the expansion of

$$(1 - 2xz + z^2)^{-\frac{1}{2}}$$

in powers of z , show that

$$(1) \quad 2^n \cdot \underline{n} P_n = \frac{d^n}{dx^n} \left\{ (x^2 - 1)^n \right\},$$

and (2) the roots of the equation $P_n = 0$ are all real and numerically less than unity.

7. Solve :—

$$\frac{dy}{dx} = (1 + y + x^2y) \tan x + x(1 - y^2).$$

8. Show that a solution of

$$x \frac{d^3y}{dx^3} + y = 0$$

is

$$y = C \int_0^{+\infty} \frac{e^{\frac{x}{v}} - \frac{1}{2}v^2}{e^{\frac{x}{v}}} v \cdot dv,$$

where the solution is confined to the part of the plane for which $x < 0$.

9. Solve:—

$$(y^2 + yz + z^2)dx + (z^2 + xz + x^2)dy + (x^2 + xy + y^2)dz = 0.$$

10. Solve:—

$$p(x-a) + q(y-b) = z-c.$$

Show that the member of the family which passes through

$$x^2 + y^2 = 1 \text{ and } z = 0$$

is

$$(az - cx)^2 + (bz - cy)^2 = (z - c)^2.$$

11. Solve completely:—

$$p^2 + q^2 = x^2 + xy + y^2.$$

12. Solve by any method

$$sxy - px - qy + z = 0,$$

and hence deduce by the principle of duality the solution of

$$z(rt - s^2) = -pqs;$$

where

$$p \equiv \frac{\partial z}{\partial x}, q \equiv \frac{\partial z}{\partial y}, r \equiv \frac{\partial^2 z}{\partial x^2}, s \equiv \frac{\partial^2 z}{\partial x \partial y}, t \equiv \frac{\partial^2 z}{\partial y^2}.$$

13. What is the first variation of

$$J \equiv \int_{x_0}^{x_1} F(x, y, y') dx ?$$

How do you obtain Euler's Differential Equation from it? What are your *a priori* assumptions concerning y ?

14. Find the shortest line between two given points, and give sufficient proofs that the solution necessarily furnishes a minimum.

15. What are conjugate points? What relation have they with the solution of Euler's Differential Equation?

16. What is Weierstrass' E -function? How do you express sufficient conditions for a maximum or minimum in terms of the E -function? Mention the most important assumption as regards variation that can be got rid of by introducing the E -function.

THEORY OF FUNCTIONS.

FIRST PAPER.

Examiner—DR. GANES PRASAD, D.Sc.

Candidates are required to give their answers in their own words as far as practicable.

Only six questions to be attempted.

The questions are of equal numerical value.

1. State Dedekind's definition of a real number and the conditions of equality and inequality.

Apply your definition to show that, if the real number A be greater than B , and B greater than C , then A is greater than C .

2. Show that the set of rational numbers is countable, but the set of real numbers is not countable.

3. Show that the set

$$G \equiv \frac{c_1}{3} + \frac{c_2}{3^2} + \dots + \frac{c_n}{3^n},$$

where c_1, c_2, \dots, c_n have each the value zero or two and n is any positive integer including ∞ , is a non-dense perfect set of zero content.

4. Write a short note on Cantor's Theory of Transfinite Numbers.

5. State Cauchy's definition of the continuity of a function at a given point. What is Heine's form of the definition? Deduce Cauchy's form from Heine's.

Show, by an example, that it is not sufficient to define the continuity of a function at a point x by saying that it attains every value between $f(x-h)$ and $f(x+h)$ in every neighbourhood $(x-h, x+h)$.

6. Explain clearly what you understand by (i) a point of discontinuity of the first kind and (ii) a point of discontinuity of the second kind.

Illustrate your answer by examples.

7. When is a function said to be differentiable at a given point? Show that, if a function has a finite differential coefficient at a given point, it is necessarily continuous at that point.

Show that the function

$$f(x) = x \left\{ 1 + \frac{1}{3} \sin \log (x^2) \right\}$$

is continuous but not differentiable at $x=0$.

8. Investigate a set of sufficient conditions for the validity of the relation

$$\frac{d^2}{dx dy} f(x, y) = \frac{d^2}{dy dx} f(x, y).$$

Show, by an example, that the relation is not always true.

9. When is a function said to be integrable according to Riemann? Show that the necessary and sufficient condition that a function $f(x)$ may be integrable in the interval (a, b) is, that for any value whatever of the positive number K , those points of the interval at which the saltus $\sigma > K$, form a set of points of zero content.

Give an example of a function which is not integrable in any interval.

10. If $f(x)$ is a limited function which is integrable in the interval (a, b) , show that

$$F(x) \equiv \int_a^x f(x) dx$$

is a continuous function of x .

If $f(x)$ be continuous in the interval (a, b) , show that $F(x)$ possesses a differential coefficient equal to $f(x)$ at every point of (a, b) .

11. Explain briefly Cantor's method of condensation of singularities.

Illustrate the method by an example.

12. Assuming for $f(x)$ no other property than that it is finite and integrable, prove that

$$\int_0^\pi f(x) \cos mx dx.$$

tends to zero, as m tends to ∞ .

THEORY OF FUNCTIONS.

SECOND PAPER.

Examiner—BABU HARIPRASANNA BANERJEE, M.Sc.

Candidates are required to give their answers in their own words as far as practicable.

You are not permitted to attempt more than SEVEN questions.

The questions are of equal numerical value.

1. Prove that the transformation effected by

$$z' = \frac{1}{z}$$

is a conformal representation without inversion of angles.

2. Show that two fixed points on a circle subtend at any two inverse points angles whose sum is constant.

3. What is the condition that the transformation

$$z' = \frac{az + b}{cz + d}$$

transforms the unit circle in the z' -plane into a straight line?

4. The double ratio of four points is real when and only when the four points lie on a circle.

5. Prove that a z -curve drawn through either of the fixed points of a real hyperbolic substitution, touches the w -curve into which it is transformed by the substitution.

6. If u and v are rational functions of x and y , find the necessary and sufficient condition that $u+v$ can be put in the form of a rational function of z alone.

7. Prove that, if a function $f(z)$ of a complex argument is regular in a simply-connected domain, then

$$\int f(z) dz = 0,$$

for every closed curve which lies entirely inside of the domain.

8. Apply the theory of residues to calculate

$$\int_{-\infty}^{\infty} \frac{x^2 - x + 2}{x^4 + 10x^2 + 9} dx.$$

9. A function $f(z)$ which is regular everywhere, with the exception of a finite number of poles, is a rational function.

10. Prove that in the neighbourhood of the origin, the function $e^{\frac{1}{z}}$ can be made to approach any arbitrary value an infinite number of times.

11. If $(w+1)^2 = \frac{4}{z}$.

the unit circle in the w -plane corresponds to a parabola

$$r \cos^2 \frac{\theta}{2} = 1,$$

in the z -plane, and the inside of the circle to the outside of the parabola.

12. Establish Weierstrass's Theorem on functions with unlimited zeros.

13. Determine the positions and characters of the branch-points of the function,

$$w = \sqrt[3]{\frac{z-a}{z-b}}, \quad (a, b \text{ complex}).$$

14. Prove that an analytic function of an analytic function is an analytic function.

15. Given the function

$$f(z) = \sum_{n=1}^{\infty} z^{n!},$$

show that the circle of convergence, i.e. the unit circle about the origin, is a natural boundary.

FINITE DIFFERENCES.

FIRST PAPER.

Examiner—BABU NARENDRAKUMAR MAJUMDAR, M.A.

Candidates are permitted to attempt only EIGHT questions, which are all of equal value.

Candidates are required to give their answers in their own words as far as practicable.

1. Prove Herschel's Theorem, viz.,

$$\phi(e') = \phi(1) + \psi(E)O \cdot t + \phi(E)O^2 \cdot \frac{t^2}{12} + \dots$$

Hence deduce

$$\phi(t) = \phi(0) + \phi\left(\frac{d}{do}\right)O \cdot t + \phi\left(\frac{d^2}{do^2}\right)O^2 \cdot \frac{t^2}{12} + \dots$$

2. What are central differences? Prove, by any method, Everett's formula of interpolation, viz.,

$$u_x = yu_0 + \frac{(y+1)^{(3)}}{3} \delta^2 u_0 + \frac{(y+2)^{(5)}}{5} \delta^4 u_0 + \dots$$

$$+ xu_1 + \frac{(x+1)^{(3)}}{3} \delta^2 u_1 + \frac{(x+2)^{(5)}}{5} \delta^4 u_1 + \dots,$$

where $\delta^2 u_0$ means the second central difference of u_0 , and similarly; also $x+y=1$.

3. What is the principle of proportional parts? Give an example illustrating the same. Give also geometrical and algebraical interpretations.

4. (1) What are equidistant terms? Show how to find a missing term in a series of equidistant terms.

(2) Find u_2 , given $u_0=98, 203$

$$u_1=97, 843$$

$$u_3=97, 034$$

$$u_4=96, 569.$$

5. Let u_x be a function whose differences are denoted by

$$\delta_x, \delta_x^2, \dots,$$

when the increment of x is unity, and by

$$\Delta_x, \Delta_x^2, \dots$$

when the increment of x is n . Then, if

$$\delta_x^2, \delta_{x-1}^2, \dots$$

are in G.P. (common ratio = q), show that

$$\frac{\Delta_x - n\delta_x}{(q^n - 1) - n(q - 1)} = \frac{\delta_x^2}{(q - 1)^2}.$$

6. Give a short proof of Gauss' method of mechanical quadrature.

7. Find the sum to n terms of

$$1 + \frac{x^{(1)}}{z^{(1)}} + \frac{x^{(2)}}{z^{(2)}} + \frac{x^{(3)}}{z^{(3)}} + \dots,$$

and show that the sum to infinity, assuming the series convergent, is

$$\frac{z + 1}{z - x + 1}$$

8. Expand

$$\Sigma(-1)^v \phi(x)$$

in a series proceeding by successive differential coefficients of $\phi(x)$, expressing the coefficients in terms of Bernoulli's numbers.

9. Express $x^{(m)} \times x^{(n)}$ in a series of factorials, $m > n$.

10. What are factorial coefficients? If

$$\delta \equiv \log(1 + D)$$

prove that

$$D^n O^{(r)} = \delta^n O^r.$$

Hence deduce the coefficient of x^k in the expansion of $x^{(n)}$.

11. Show that the series,

$$a_0 + a_1 + a_2 + \dots + a_n + \dots,$$

and the series

$$\frac{a_1}{a_0} + \frac{a_2}{a_0 + a_1} + \dots + \frac{a_n}{a_0 + a_1 + \dots + a_{n-1}} + \dots$$

are convergent or divergent together.

12. Show that if $f(x)$ be such that

$$Lt \frac{x f'(x)}{f(x)} = 1, \text{ when } x=0,$$

the series Σu_n and the series $\Sigma f(u_n)$ converge and diverge together.

FINITE DIFFERENCES.

SECOND PAPER.

Examiner—BABU NARENDRAKUMAR MAJUMDAR, M.A.

Candidates are permitted to attempt only EIGHT questions, which are all of equal value.

Candidates are required to give their answers in their own words as far as practicable.

1. Solve:—

$$u_{x+2} + 2u_{x+1} + u_x - a(u_{x+2} - u_{x+1} - u_x) = 0.$$

2.

$$y = \frac{\Delta y}{2x+1} \left(x^2 + \frac{\Delta y}{2x+1} \right)$$

is satisfied by

$$y = cx^2 + c^2.$$

Deduce another complete primitive.

3. Solve completely:—

$$\Delta^6 u_{x+1} - 2 \Delta^6 u_x = x + 3^x.$$

4. Show that the equation

$$u_{x+2} - (a^{x+1} + a^{-x})u_{x+1} + u_x = 0$$

may be resolved into two equations of differences of the first order
Obtain the complete solution.

5. Prove that

$$(1) F(E)a^x f(x) = a^x F(aE)f(x);$$

$$(2) f(x\Delta)(xE)^m u_x = (xE)^m f(x\Delta + m)u_x$$

6. Solve:—

$$x(x+1)\Delta^2 u + x\Delta u - n^2 u = 0.$$

7. Solve completely:—

$$u_{x+2} - 3 \frac{du_{x+1}}{dy} + 2 \frac{d^2 u_x}{dy^2} = \sin x + y^2.$$

8. If

$$\psi(t) = \frac{a}{b+t},$$

find, by forming and integrating the corresponding difference-equation the value of the continued fraction

$$\frac{a}{b+} \frac{a}{b+} \frac{a}{b+} \dots + \frac{a}{b+t}$$

the number of simple fractions being x .

9. Solve:—

$$(1) \quad \psi(x) + x\psi(-x) = 1;$$

and hence

$$(2) \quad \frac{\psi(x)}{\psi(x)-x} + \frac{x\psi(1-x)}{\psi(1-x)+(x-1)} = 1$$

10. Solve:—

$$\frac{\psi\left(\frac{x}{1+x}\right)}{1+\psi\left(\frac{x}{1+x}\right)} = \psi\left(\frac{x}{1+2x}\right).$$

11. Solve:—

$$(1) \quad \psi\left(\sqrt{\frac{1+x}{x}}\right) = \psi^2(x);$$

$$(2) \quad \psi(2x-x) = \psi^3(x).$$

12. Find the general equation of curves in which the diameter through the origin is constant in value.

PROJECTIVE GEOMETRY.

FIRST PAPER.

Examiner—DR. SYAMADAS MUKERJEE, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

Only EIGHT questions to be attempted.

The questions are of equal numerical value.

Purely geometrical methods only will be accepted.

1. Show that if two triangles ABC and $A'B'C'$ lie in *different* planes and if the three pairs of straight lines $(BC, B'C')$, $(CA, C'A')$, $(AB, A'B')$ meet in three collinear points, then AA' , BB' , CC' will pass through a common point.

Show that the Theorem also holds when the triangles ABC and $A'B'C'$ are coplanar

2. Show that if two complete quadrangles $ABCD$, $A'B'C'D'$ are such that the five pairs of sides $(AB, A'B')$, $(BC, B'C')$, $(CA, C'A')$, $(AD, A'D')$, $(BD, B'D')$ intersect in five collinear points, then the sixth pair of sides $(CD, C'D')$ will intersect at a point collinear with the first five.

Point out the connection of the above theorem with a fundamental property of the harmonic range.

3. Explain a method of geometrically constructing the self-corresponding elements of two superposed one-dimensional projective forms.

Inscribe in a given triangle another triangle whose three sides shall pass through three given points. (Constructions only are required.)

4. Show that any transversal meets a conic and the opposite sides of an inscribed quadrangle in three conjugate pairs of points of an involution.

State and prove the correlative theorem, using corresponding arguments and letters.

5. Show that if two complete quadrangles have the same diagonal points, their eight vertices lie four and four on two straight lines or else they all lie on a conic.

6. Show that if two conics which are inscribed in a given quadrilateral pass through a given point, their tangents at this point are conjugate lines with respect to any conic inscribed in the quadrilateral.

Hence deduce that the poles of any straight line with respect to all conics inscribed in the same quadrilateral lie on another straight line.

7. Show that if two triangles are both self-conjugate with regard to a given conic, their six vertices lie on a conic and their six sides touch another conic.

Hence show that if a conic touch the sides of a triangle which is self-conjugate with regard to another conic, there are an infinite number of other triangles which are self-conjugate with regard to the second conic and which circumscribe the first.

8. How does Cremona define *focus* of a conic? Deduce rigorously from the definition that a central conic has two and only two foci which lie on an axis.

9. Show that if the truth of the hypothesis of the right angle, of the obtuse angle or of the acute angle, respectively, is known only in one case, its truth is also known in every other case.

10. What is Lambert's Postulate? Show how Legendre proves that the sum of the angles of a triangle are together equal to two right angles, basing his proof on Lambert's postulate.

11. Show that each of the following postulates is equivalent to the fifth postulate of Euclid.

(i) From any point whatever, taken *within* an angle, we can always draw a straight line which will cut the two arms of the angle.

(ii) A circle can always be drawn through three points not on a straight line.

12. Write a short note on some of the more important results on Non-Euclidean Geometry which were arrived at by Gauss in his *Meditations*.

PROJECTIVE GEOMETRY.

SECOND PAPER.

Examiner—BABU INDUBHUSAN BRAHMACHARI, M.A.

Answer question 8 or 9 and FIVE of the first seven questions.

The figures in the margin indicate full marks.

1. If in the plane field (σ) we take any four points A, B, C, D 15 which are the vertices of a quadrangle, and in (σ') another field any four points A', B', C', D' which are the vertices of a quadrangle, then there exists a definite projectivity $(\sigma) \wedge (\sigma')$ in which (A, A') , (B, B') , (C, C') , (D, D') are four pairs of corresponding points.

Prove the above theorem when the two quadrangles lie in different planes; and from it deduce the theorem that in any two conics k, k' , a

projectivity $(A', B', O' \dots) = \omega(A, B, C \dots)$ can always be constructed from the three given pairs of corresponding points (A, A') etc., where ABC and $A'B'C'$ are two triads on k and k' respectively.

2. "Two coplanar triangles $ABC, A'B'C'$ are such that AA', BB', CC' meet at a point. Show that the pairs of corresponding sides meet in three collinear points. 15

Any two such corresponding triangles in plane homology, which have no elements common, always determine a polarity in which they are relative polar triangles."

Establish this.

3. ABC is any triangle inscribed in a conic. Through S the pole of BC , any straight line is drawn meeting AB and AC in P and Q . Show that P and Q are conjugate points. 15

To whom is the above proposition due?

Use the above proposition to prove that two quadric cones can always be drawn to pass through two conics k, k' lying in different planes and cutting the meet of the planes in the same two points x and y , so that every point of xy that is within k lies also within k' .

4. Show that in an involution $\omega^2 = 1$. 15

How many pairs of conjugate points are required to determine an involution on a straight line?

Deduce the result as a particular case of general correspondence. If $BCAA', CABB', ABCC'$ are all harmonic ranges, then $ABC \wedge A'B'C'$.

Assuming the truth of the above theorem, deduce the interesting analogue in the algebra of invariants and covariants.

5. If $\{A'B'C' - \dots\} = \omega\{ABC - \dots\}$ is a projectivity of points on a conic, then in general AA', BB' , etc. envelop a conic, having double contact with the original conic. Prove the above proposition and determine geometrically the chord of contact. 15

6. Define a regulus of the second order. 15

Prove that any director cuts the rays of the regulus in a range of constant cross ratio.

Given a curve of the second order and two straight lines " a " and " b " each having one point in common with the curve, but neither lying in the plane of the curve, nor in the same plane with the other, show that they determine a regulus of the second order perspective to the curve, of which the two straight lines are directors.

7. Enunciate and prove Brianchon's theorem; obtain Pascal's theorem by reciprocation. 15

If $ABCDE$ be a pentagon circumscribing a parabola, the parallels from B to CD and from A to DE meet on CE . Prove this.

8. Give the six axioms of congruence as given by Hilbert, and establish Desargue's theorem for plane geometry by aid of those axioms. 25

9. Write, after Mathews, a short essay on the theory of Casts. 25

MIXED MATHEMATICS.

FIRST PAPER.

Examiner—S. P. DAS, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Not more than SIX questions are to be attempted.

The questions are of equal numerical value.

1. If a rigid body is acted upon by a wrench about a screw a , what is the work done by giving the body a small twist about another screw β ?

The axes of three coplanar screws of pitches p_a, p_β, p_γ form a triangle whose sides are a, b, c respectively; prove that the pitches of the two screws (other than that perpendicular to the plane) which can be drawn through any point, O , in their plane and reciprocal to them are the roots of the equation

$$x + p_a \frac{ap}{x + p_a} + \frac{bq}{x + p_\beta} + \frac{cr}{x + p_\gamma} = 0,$$

where p, q, r are the perpendiculars from O on the sides a, b, c (all reckoned positive when O is inside the triangle).

2. Prove that when a system of forces is reduced to a pair of forces represented in magnitudes and lines of action by two right lines, the volume of the tetrahedron formed by these lines is constant, however the reduction is made.

A given system of forces equivalent to a wrench of pitch p is to be reduced to two inclined at the angle α ; prove that the shortest distance between their lines of action cannot be less than

$$2p \cot \frac{\alpha}{2}.$$

3. Find the condition that a given system of forces should be equivalent to a single resultant.

Forces X, Y, Z act along the three straight lines

$$y=b, z=-c; z=c, x=-a; x=a, y=-b;$$

respectively; prove that they will have a single resultant if

$$aYZ + bZX + cXY = 0,$$

and that the equations of the line of action will be any two of the three

$$\frac{y}{Y} - \frac{z}{Z} + \frac{a}{X} = 0, \quad \frac{z}{Z} - \frac{x}{X} + \frac{b}{Y} = 0, \quad \frac{x}{X} - \frac{y}{Y} + \frac{c}{Z} = 0.$$

4. A heavy cylindrical body rests in critical equilibrium on a fixed perfectly rough cylindrical surface, the surfaces in contact being convex to each other. If ρ and ρ' are the finite radii of curvature, at the line of contact, of the lower and upper bodies respectively, and h is the height

of the centre of gravity of the upper body over the line of contact, show that

$$\frac{1}{h} = \frac{1}{\rho} + \frac{1}{\rho'}$$

and investigate the condition for stability. If the bodies are in contact at vertices, prove that equilibrium will be stable if

$$\frac{d^2 \frac{1}{\rho}}{ds^2} + \frac{d^2 \frac{1}{\rho'}}{ds'^2} + \frac{1}{\rho h} \left(\frac{1}{\rho} + \frac{1}{h} \right)$$

is negative.

Is the critical equilibrium of a paraboloid of revolution resting on a horizontal plane stable or unstable?

5. A string rests on a smooth surface of revolution, under the action of any forces. Obtain equations from which the form of the string may be deduced and note the simplifications in the case in which the only force on the string is its weight, and the axis of figure of the surface is vertical.

A string rests on a smooth sphere, cutting all the sections through a fixed diameter at a constant angle. Show that it would so rest if acted on by a force varying inversely as the square of the distance from the given diameter, and that the tension varies inversely as that distance.

6. Find the attraction of a uniform thin circular plate on a unit mass condensed into a point P situated on a line drawn through the centre of the plate perpendicular to the plane of the plate. For what position of P and under what precise conditions would the attraction be the same for an infinitely large plate as for an infinitely small plate?

Find the attraction of a uniform right cone (of height h and semivertical angle α) on a unit mass at the centre of the base.

7. Discuss the discontinuities of the Newtonian Potential and its first and second differential coefficients.

Prove that a function of x, y, z continuous and with partial derivatives of the first order everywhere, vanishing at infinity, harmonic except within some closed region where it admits of continuous derivatives of the second order satisfying Poisson's equation, is the Potential Function.

8. Express Laplace's equation in Confocal Coordinates. Hence, or otherwise, show that the potential at any point due to an ellipsoid (semi-axes a, b, c) charged to potential unity can be written as

$$V = \frac{\int_{\lambda}^{\infty} \frac{d\lambda}{\Delta_{\lambda}}}{\int_0^{\infty} \frac{d\lambda}{\Delta_{\lambda}}}$$

where

$$\Delta_{\lambda} = \{(a^2 + \lambda)(b^2 + \lambda)(c^2 + \lambda)\}^{\frac{1}{2}}.$$

Hence find the Capacity of the Conductor.

9. Find the boundary conditions at the surface of discontinuity of the Specific Inductive Capacity of a dielectric.

A sphere of dielectric constant k is introduced into a field of force (with the centre at the origin) in which the potential is a homogeneous poly-

nomial of degree n in x, y, z . Show that the potential inside the sphere is reduced to

$$\frac{2n+1}{nk+n+1}$$

of its former value.

10. Explain the method of Inversion as applied to the Theory of Attraction, taking as an illustration the case of a homogeneous spherical surface inverted with respect to an external point.

11. A uniform elastic rod of weight w per unit length rests on a number of fixed supports in a horizontal line and is slightly bent by its own weight in a vertical plane. Prove that if M_1, M_2, M_3 be the values of the bending moment at three consecutive supports separated by distances a, b

$$M_1a + 2M_2(a+b) + M_3b - \frac{1}{4}w(a^3 + b^3) = 0$$

If the length of the rod be $2a(m+1)$ and there be five supports, two at the ends, one at the centre and two at distances a from the centre, prove that the ratio of the pressure on the central support to the weight of the rod is

$$6 + 10m - 3m^3 : 4(1+m)(3+4m).$$

12. What is a pure strain? Analyse any strain into a pure strain and a rotation, explaining the significance of the latter term.

Prove that the greatest shearing strain is equal to the difference between the algebraically greatest and least principal extensions and that the corresponding directions bisect the angles between the principal axes of the strain for which the extensions are the maximum and the minimum.

SECOND PAPER.

Examiner—BABU KARUNAMAY KHASTGIR, M.A.

Candidates are required to give their answers in their own words as far as practicable.

Attempt SIX, but no more than six, of the following questions.

The questions are of equal numerical value.

1. Obtain the expressions for the velocities and accelerations of a particle in three-dimensional polar coordinates.

The position of a particle is given by coordinates x, y, r , where x, y, r have their usual signification relative to rectangular axes; show that the component accelerations in the directions of x, y and r are

$$\ddot{x} + \frac{u\omega}{r}, \quad \ddot{y} + \frac{v\omega}{r}, \quad \ddot{\omega} - \frac{u\omega x}{r^2} - \frac{v\omega y}{r^2}.$$

2. The position of a particle is known in a plane with respect to a set of oblique axes: find the components of velocity and acceleration of the particle along the two oblique axes

The velocity of a point moving in a plane is the resultant of two velocities u and v along two radii vectores r and r' measured from two

fixed points at a distance a apart. Prove that the corresponding accelerations are

$$\frac{dv}{dt} + \frac{vv'}{2r^2r'}(r^2 - r'^2 + a^2), \quad \frac{dv'}{dt} + \frac{vv'}{2r'^2r}(r'^2 - r^2 + a^2).$$

3. The equation of motion of a particle is

$$\frac{d^2x}{dt^2} + 2k \frac{dx}{dt} + \omega^2 x = E \cos pt;$$

determine the motion when $\omega^2 > k^2$.

A heavy particle P is suspended at rest from a point A by an elastic string whose initial and unstretched length is a . The point A at the time $t=0$ begins to oscillate up and down, so that its displacement (measured downwards) at the time t is $c \sin \lambda t$. Prove that the length of the string at the time t is

$$a + \frac{g}{n^2}(1 - \cos nt) - \frac{cn\lambda}{n^2 - \lambda^2} \sin nt + \frac{c\lambda^2}{n^2 - \lambda^2} \sin \lambda t.$$

4. A particle is projected vertically upwards with a velocity V in a medium resisting as the n^{th} power of the velocity. Determine the motion.

A heavy particle is projected upwards with velocity V in a medium resisting as the n^{th} power of the velocity. Prove that the whole space (up and down) described, when the velocity downwards is V , is equal to LT , when L is the limiting velocity and T is the time in which the particle falling from rest in the medium will acquire a velocity V^2/L .

5. Prove that the motion of a particle sliding from rest on a rough cycloid, whose axis is vertical, in a medium whose resistance varies as the velocity, is tautochronous.

Find also the whole time from one position of instantaneous rest to the next.

A heavy particle, mass m , falls down a smooth cycloid, whose axis is vertical and vertex upwards, in a medium whose resistance is $\frac{mv^2}{2c}$, the distance of the starting point from the vertex being c : prove that the time to the cusp is

$$\sqrt{8a(4a-c)}/\sqrt{gc},$$

$2a$ being the length of the axis.

6. A system of particles is referred to moving axes $O\xi$, $O\eta$, the origin not being fixed; find the equation of the vis-viva relative to the moving axes.

For a single particle, deduce Jacobi's equation in the form

$$\frac{1}{2}v^2 - nA = U + c,$$

the origin being fixed.

A particle moves under the action of a force whose Cartesian components are

$$X = v^n \frac{dU}{dx}, \quad Y = v^n \frac{dU}{dy},$$

where v is the velocity. Prove that the equation of vis-viva is

$$v^2 - n = (2-n)U + C.$$

7. A particle is acted on by forces P and Q , along and perpendicular to the radius-vector. Obtain Laplace's differential equation of the path

of the particle. Deduce the polar differential equation of the path of a particle moving under a central force.

Prove that the differential equation of a particle moving under the action of a central force in a medium whose resistance varies as the square of the velocity is

$$\frac{d^2u}{db^2} + u = \frac{P}{h^2 u^2} e^{2ks}$$

8. A particle moves under a central force $F = pu^u$ and the orbit is nearly circular. Obtain the equation to the orbit proceeding to the third order of approximation. Find also the apsidal angle of the orbit in this case.

9. An orbit is described by a particle about a centre of force O whose law is known: find the law of force by which the same orbit can be described about another centre of force O .

If the orbit be a conic section with centre C , find Hamilton's formula for the force to any point O .

The conic being given in its general form referred to any rectangular axes, viz.

$$Ax^2 + 2Cxy + By^2 + 2Dx + 2Ey + G = 0,$$

prove that the Hamiltonian expression for the force to the origin may be put into the form

$$F = \frac{h^2 \Delta r}{(Dx + Ey + G)^3},$$

where Δ is the discriminant.

10. Explain the method of finding the motion of a particle on a rough curve fixed in space.

A rough helical tube of pitch a and radius a is placed so as to have its axis vertical and the coefficient of friction is $\tan a \cos \epsilon$. An extended flexible string which just fits the tube is placed in it: show that when the string has fallen through a vertical distance ma , its velocity is

$$(ug \sec a \sin h 2\mu)^{\frac{1}{2}},$$

where μ is determined by the equation

$$\cot \frac{\epsilon}{2} \tanh \mu = \tanh (\mu \sin \epsilon + \frac{1}{2} m \cos a \sin 2\epsilon).$$

11. Obtain the equations of motion of a particle moving on a fixed surface and deduce the condition that the path of the particle may be a geodesic.

A particle moves on a rough cylinder (circular), under the action of no external forces. Prove that the space described in time t is

$$\frac{a \sec^2 a}{\mu} \log \left(1 + \frac{\mu V \cos^2 at}{a} \right)$$

where the particle has initially a velocity V in a direction making an angle a with the transverse plane of the cylinder.

12. Deduce the equations of motion of a particle relative to the earth, when the rotation of the earth about the polar axis is taken into account.

A particle is projected with a velocity V in a direction making an angle a with the horizontal plane, and the vertical plane through the direction of projection makes an angle β with the plane of the meridian, the angle β being measured from the south towards the west. If x is

measured horizontally in the plane of projection, y horizontally in a direction making an angle $\beta + \frac{\pi}{2}$ with the meridian, and z vertically upwards from the point of projection, prove that

$$x = V \cos at + (V \sin at^2 - \frac{1}{2}gt^2) \omega \cos \lambda \sin \beta,$$

$$y = (V \sin at - \frac{1}{2}gt^2) \omega \cos \lambda \cos \beta + V \cos at^2 \omega \sin \lambda,$$

$$z = V \sin at - \frac{1}{2}gt^2 - V \cos at^2 \omega \cos \lambda \sin \beta,$$

where λ is the latitude of the place and ω the angular velocity of the earth.

THIRD PAPER.

Examiner—RAI ABINASHCHANDRA BASU, BAHADUR, M.A.

Candidates are required to give their answers in their own words as far as practicable.

Answer either eight out of questions 1 to 12, or six out of questions 1 to 12 plus question 13 which counts as two questions carrying twice the number of marks as any of the others, which are of equal numerical value.

1. Explain the terms "moment of inertia about a line," "momental ellipsoid," and the "ellipsoid of gyration."

Show that the locus of all principal axes which pass through a given point P is a cone of the second degree, which has generating lines parallel to the principal axes at G , the centre of inertia, and the locus of principal axes parallel to the line GP is the plane through GP , which is the tangent plane to the cone.

If the point P move along the straight line GP , show that the cone will remain similar to itself.

2. What do you understand by equimomental bodies?

Show that a uniform solid tetrahedron of mass M is equimomental to four particles, each of mass $\frac{M}{20}$, at the vertices and a fifth particle of

mass $\frac{4M}{5}$ at the centre of inertia.

3. Enunciate D'Alembert's principle and deduce the equations of motion of a rigid body acted on by given forces.

Two rods AB , BC are hinged at B and are held in a vertical plane at given inclinations to the horizon, with B in contact with a smooth horizontal plane and A in contact with a smooth vertical wall. If motion be allowed to take place, determine the motion and find the pressure between the rod AB and the wall.

4. A homogeneous sphere is rotating about a horizontal diameter and is gently placed on a rough horizontal plane, the coefficient of friction being μ . Determine the subsequent motion (i) when the couple of rolling friction is neglected, and (ii) when it is not neglected.

5. If a homogeneous sphere roll on a rough fixed plane under the action of any forces whatever, whose resultant passes through the centre of the sphere, the motion of the centre is the same as if the plane were smooth and all the forces were reduced to five-sevenths of their former values. Establish this.

Show that the same theorem will apply to the motion of a sphere on a rough fixed spherical cavity when there is no initial spin round the common normal.

6. A system is in equilibrium with given supports; suddenly one of the supports gives way. Show how to determine the *initial* reactions of the other supports.

A uniform rod of length $2a$ is suspended by two equal strings attached at two points at equal distances b from the centre of gravity, the system resting symmetrically with each string inclined at an angle α to the horizon. If one string is cut, show that the initial tension of the other string is instantaneously reduced in the ratio

$$2a^2 \sin^2 \alpha : a^2 + 3b^2 \sin^2 \alpha.$$

Show also that the centre of gravity begins to describe a line inclined to the horizon at an angle equal to

$$\tan^{-1} \left(\frac{a^2 \cos^2 \alpha + 3b^2 \sin^2 \alpha}{a^2 \sin \alpha \cos \alpha} \right).$$

7. Obtain the equations of motion of a rigid body moveable about one point.

A smooth circular disc, radius a , mass M , has its centre fixed at a height $a \sin \alpha$ above a smooth horizontal plane and rests upon the plane. It is set rotating with angular velocity ω about the vertical through the centre. Show that it will preserve its contact with the plane if a constant downward force

$$\frac{Ma \sin \alpha}{4} \omega^2$$

be applied at the point of contact.

8. Prove Lagrange's equations of motion in generalised coordinates and obtain the corresponding equations in the case of impulsive forces.

AB and BC are two equal rods hinged at B . The point A is fixed and in the beginning both rods are held horizontal so that ABC is a straight line. The system is then allowed to move under gravity. Find equations to determine the subsequent motion.

9. A rigid wire in the shape of a given curve is moving in any manner. Find the tendency to break at any point of the wire.

A uniform rod rotating in a vertical plane about one extremity, which is fixed, is acted on by a central force at a point in the same horizontal line as the fixed extremity and at a distance from it equal to the length of the rod; find the law of force that there may be no tendency to break at the centre of the rod throughout the motion.

10. Enunciate and establish the principles known as that of *Vis Viva* and of *Angular Momentum*.

Show how a person when swinging can increase the angle of vibration by alternately crouching at the highest point and straightening himself along the rope when at the lowest point.

11. A system of material particles is moving in any manner. Suddenly new restraints or geometrical relations are introduced by which some of the particles are compelled to take new courses. Show that *Vis Viva* is lost and that the loss is equal to the *Vis Viva* of the relative motion. To whom is this general theorem due?

Use this theorem in the case of the ballistic pendulum to find the initial motion after the impact.

12. Prove that in investigating the time of small oscillations of a rigid body we can, if squares of small quantities are neglected, take moments about the instantaneous axis of rotation.

A uniform sphere of radius 3 feet rests at the lowest point of a hollow spherical surface of radius 7 feet in a fixed body, and the equilibrium is slightly disturbed in a vertical plane. If the friction be enough to prevent sliding, show that the period of a small oscillation is the same as that of a pendulum of length $5\frac{1}{2}$ feet.

What would be the period if there were no friction ?

13. Write an essay on one of the following subjects :—

- (i) The two-dimensional impact of two imperfectly elastic rough laminae moving in any manner.
- (ii) The motion of a billiard ball.
- (iii) Screw motion of a rigid body.
- (iv) Small oscillations and principal coordinates.

FOURTH PAPER.

Examiner—R. P. PARANJPYE, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Attempt either EIGHT out of the first ten questions, or question 11 and six others.

The questions are of equal numerical value except question 11, which counts as two questions.

1. A heterogeneous liquid is in equilibrium under the action of given forces; find the differential equation of the curves of equal pressure and density.

If the forces are

$$X = x \cdot \frac{y^2 + z^2}{a^2}, \quad Y = y \cdot \frac{z^2 + x^2}{b^2}, \quad Z = z \cdot \frac{x^2 + y^2}{c^2}$$

the curves are sphero conics.

2. The density of a liquid, contained in a cylindrical vessel, varies as the depth: it is transformed to another vessel in which the density varies as the square of the depth; find the shape of the new vessel.

Write down equations appropriate to vessels of any shape, provided they are surfaces of revolution.

3. If a plane area be immersed vertically in a homogeneous fluid, and if h be the depth of its centre of gravity, z the depth of its centre of pressure, and k the radius of gyration about the intersection of the plane with the surface, prove that $zh = k^2$.

Find the centre of pressure of a square with an angle at the surface and the diagonal vertical.

Find also the equation of a curve symmetrical about a vertical axis such that, when it is immersed with its highest point at half the depth of its lowest, the centre of pressure may bisect the axis.

4. Find in the case of a right circular cone floating with its vertex beneath the surface, the surfaces of floatation and buoyancy, and explain how its positions of equilibrium can be obtained.

3. Prove that any continuous acyclic irrotational motion of a liquid mass may be regarded as due to a distribution of simple sources only or double sources only over the boundary.

Between the fixed boundaries

$$\theta = \frac{1}{4}\pi \text{ and } \theta = -\frac{1}{4}\pi,$$

there is a two-dimensional liquid motion due to a source of strength μ at the point

$$(r=a, \theta=0)$$

and an equal sink at the point

$$(r=b, \theta=0).$$

Show that the stream function is

$$\mu \tan^{-1} \left\{ \frac{r^4(a^4 - b^4) \sin 4\theta}{r^3 - r^4(a^4 + b^4) \cos 4\theta + a^4 b^4} \right\}.$$

4. An infinitely long circular cylinder of radius a is set in motion in an infinite mass of liquid which is at rest at infinity with a velocity U perpendicular to its length in a direction making an angle ϵ with the x -axis. If there is also an independent circulation round the cylinder, the cyclic constant being k , prove that the velocity potential is

$$\phi = \frac{Ua^2}{r} \cos(\theta - \epsilon) - \frac{k}{2\pi} \theta.$$

If in addition the cylinder as well as the liquid be acted on by extraneous force of the nature of gravity in the direction of the y -axis, prove that the path of the cylinder is a trochoid.

5. An infinitely long plane lamina whose edges are at $x = \pm c$ and which is perpendicular to the plane of x, y moves 'broadside on' in an infinite mass of liquid with velocity V . Prove that the stream-function at all points in the liquid except at the edges of the lamina is given by

$$\psi = V.c.e^{-\xi} \cos \eta,$$

where ξ, η are the elliptic coordinates.

If the lamina be kept fixed, prove that the stream-function for a current impinging on the lamina at an angle 45° is

$$\psi = -\frac{1}{\sqrt{2}} q_0 c \sinh \xi (\cos \eta - \sin \eta),$$

where q_0 is the velocity at infinity.

6. Prove that the motion produced by a solid sphere in an infinite mass of liquid may be regarded as due to a double source at the centre.

A solid is formed by the exterior portions of two spheres of radii a and b which cut one another orthogonally and is surrounded by an infinite mass of liquid. If the solid is set in motion with velocity U in the direction of the line of centres, prove by an application of the theory of images, or otherwise, that the velocity potential of the resulting motion is

$$\frac{1}{2} U \left[\frac{a^3 \cos \theta}{r^2} + \frac{b^3 \cos \theta'}{r'^2} - \frac{a^3 b^3}{(a^2 + b^2)^{\frac{3}{2}}} \frac{\cos \odot}{R^3} \right],$$

where r, r', R are the radii vectores of a point measured respectively

from the centres of the two spheres and from a point dividing the line joining the centres in the ratio $a^2:b^2$, and θ, θ', \odot are the angles which the radii-vectores make with the direction of motion of the solid.

7. When the motion is irrotational and is symmetrical about an axis, prove that the velocity potential ϕ satisfies the equation

$$\frac{\partial}{\partial r} \left(r^2 \frac{\partial \phi}{\partial r} \right) + \frac{\partial}{\partial \mu} \left\{ (1-\mu^2) \frac{\partial \phi}{\partial \mu} \right\} = 0,$$

and the stream-function ψ satisfies the equation

$$r^2 \frac{\partial^2 \psi}{\partial r^2} + (1-\mu^2) \frac{\partial^2 \psi}{\partial \mu^2} = 0$$

where $\mu = \cos \theta$.

Prove that

$$\phi = r^{-n-1} P_n(\mu), \quad \psi = -\frac{1}{n} r^{-n} (1-\mu^2) \frac{dP_n(\mu)}{d\mu}$$

are solutions of these equations.

8. If a solid be moving in an infinite liquid and if the motion of the solid at any instant be defined by the angular velocities p, q, r about, and the translational velocities u, v, w of the origin parallel to the instantaneous positions of three rectangular axes fixed in the solid, prove that the kinetic energy of the fluid is a quadratic function of u, v, w, p, q, r . If T denote the kinetic energy of the fluid, prove that the forces (X, Y, Z) and the couples (L, M, N) exerted on the moving solid by the pressure of the surrounding fluid are

$$X = -\frac{d}{dt} \frac{\partial T}{\partial u} + r \frac{\partial T}{\partial v} - q \frac{\partial T}{\partial w},$$

$$L = -\frac{d}{dt} \frac{\partial T}{\partial p} + w \frac{\partial T}{\partial v} - v \frac{\partial T}{\partial w} + r \frac{\partial T}{\partial q} - q \frac{\partial T}{\partial r}.$$

Hence show that there are, for any solid, three mutually perpendicular directions of permanent translation, and that the impulse necessary to produce one of these permanent translations does not in general reduce to a single force.

9. Prove that the vortex lines move with the fluid. Prove that the components of velocity (u, v, w) due to an isolated reentrant vortex filament situated in an infinite mass of liquid which is at rest at infinity can be expressed in the form

$$u = \frac{k}{4\pi} \int \left(\frac{dy'}{ds'} \cdot \frac{z-z'}{r} - \frac{dz'}{ds'} \cdot \frac{y-y'}{r} \right) \frac{ds'}{r^2},$$

and two similar expressions, where the integrals are to be taken along the whole length of the filament. Hence show that (u, v, w) can be derived from a potential function

$$\phi = \frac{k}{4\pi} \iint \frac{\cos \theta}{r^2} dS',$$

where the integral is carried over any surface bounded by the filament

and θ is the angle between the normal to the element dS' and the line r joining (x, y, z) to the element.

10 If $(r_1, \theta_1), (r_2, \theta_2) \dots$ be polar coordinates at time t of a system of rectilinear vortices of strengths k_1, k_2, \dots , prove that

$$\sum kr^2 = \text{const. and } \sum kr^2 \dot{\theta} = \frac{1}{2\pi} \sum k_1 k_2.$$

A fixed cylinder of radius a is surrounded by an incompressible homogeneous fluid extending to infinity. Symmetrically arranged round it as generators on a cylinder of radius c ($> a$) coaxial with the given one are n straight parallel vortex filaments each of strength k . Show that the filaments will remain on this cylinder throughout the motion and revolve round its axis with angular velocity

$$\frac{k}{4\pi c^2} \cdot \frac{(n+1)c^{2n} + (n-1)a^{2n}}{c^{2n} - a^{2n}}.$$

11. If simple harmonic surface waves are propagated in water of uniform depth h contained in a canal with parallel vertical sides at right angles to the ridges and hollows, prove that the velocity potential is given by

$$\phi = \frac{ga}{n} \frac{\cosh \frac{2\pi}{\lambda}(y+h)}{\cosh \frac{2\pi}{\lambda}h} \cosh \left(\frac{2\pi}{\lambda}x - nt \right),$$

where

$$n^2 = \frac{2\pi}{\lambda} g \tanh \frac{2\pi h}{\lambda},$$

λ is the wave-length and a the amplitude of the wave profile, the x -axis being taken in the undisturbed surface in the direction of propagation and y -axis vertically upwards.

Prove that the fluid particles describe ellipses about their mean positions.

12. Prove Kelvin's theorem

$$\frac{D}{Dt} \int_A^B (u dx + v dy + w dz) = \left[- \int \frac{dp}{\rho} - V + \frac{1}{2} q^2 \right]_A^B,$$

for the rate at which flow from A to B is increasing.

Hence show that if the motion of any portion of a fluid mass be initially irrotational, it will always retain this property, provided the force-function V is single-valued and the density ρ is either constant or a function of the pressure only.

A thin stratum of incompressible fluid is contained between two concentric spheres, show that the velocity at any point is equivalent to the components

$$\frac{1}{r} \frac{\partial \psi}{\partial \theta}, - \frac{\partial \psi}{\partial r}.$$

along the meridian and parallel respectively. Also if the fluid be homogeneous and the motion irrotational, prove that

$$\frac{\partial \phi}{\partial t} = \frac{1}{\sin \theta} \frac{\partial \psi}{\partial \omega}, \quad \frac{1}{\sin \theta} \frac{\partial \phi}{\partial \omega} = -\frac{\partial \psi}{\partial \theta},$$

and deduce that $\phi + i\psi = F(e^{i\omega} \tan \frac{1}{2}\theta)$.

13. Prove the characteristic equation;

$$\frac{\partial^2 \phi}{\partial t^2} = c^2 \nabla^2 \phi,$$

for the propagation of sound waves.

Solve the equation when ϕ is a function of r only and show that the frequency equation for the free radial vibrations of a gas contained in a rigid spherical envelope of radius a is

$$\tan ka = ka,$$

where $k = \frac{2\pi}{\lambda}$, λ being the wave-length.

SIXTH PAPER.

Examiner—DR. D. N. MALLIK, B.A., SC.D., F.R.S.E.

Candidates are required to give their answers in their own words as far as practicable.

Not more than SIX questions to be attempted.

The questions are of equal numerical value.

1. Prove that at any instant the inclination of the ecliptic to the horizon is

$$\cos^{-1} \{ \cos \omega \sin \phi - \sin \omega \cos \phi \sin t \}$$

and the azimuth of the point where it intersects the horizon is

$$\tan^{-1} \{ \cot \omega \cos \phi \sec t + \sin \phi \tan t \},$$

where ϕ is the latitude of the place, ω the obliquity of the ecliptic and t the sidereal time.

Show also that for a place within the arctic or antarctic circle the points of intersection of the ecliptic with the horizon travel completely round the horizon, during a sidereal day, but that for any other place they oscillate about the east and west points between $\sin^{-1}(\sin \omega \sec \phi)$ on one side of the prime vertical and the same angle on the other.

2. If Δ be the N.P.D. and z the zenith distance of Polaris observed below the pole at an hour angle h from the meridian, show that the latitude ϕ may be determined from the equations

$$\tan^2 \left[\frac{\pi}{4} - \frac{1}{2}(\phi - x) \right] = \tan \frac{1}{2}(z + y) \tan \frac{1}{2}(z - y),$$

$$\sin y = \sin \Delta \sin h, \quad \tan x = \tan \Delta \cos h.$$

What is the geometrical significance of the auxiliaries x and y ?

3. Assuming the atmosphere to be of uniform density and of refractive index μ , show that the refraction R is given by

$$R = (\mu - 1) \frac{a \sin z}{\sqrt{\{(a+H)^2 - a^2 \sin^2 z\}}},$$

where a is the earth's radius and H the height of the homogeneous atmosphere.

If the horizontal refraction be $35'$, show that the sidereal time of rising or setting of the sun's centre when its R.A. and decl. are α , δ is

$$\alpha + 2 \cos^{-1} \left\{ \sec \phi \sec \delta \cos (45^\circ 17' 30'' - \frac{1}{2}\phi - \frac{1}{2}\delta) \sin (44^\circ 42' 30'' - \frac{1}{2}\phi - \frac{1}{2}\delta) \right\}^{\frac{1}{2}},$$

where ϕ is the latitude of the place.

4. If $\Delta\alpha$, $\Delta\delta$ be the effects of precession and nutation on the R.A. and decl. (α , δ) of a star, prove that

$$\begin{aligned} \Delta\alpha &= (\cos \omega + \sin \alpha \tan \delta \sin \omega) \Delta\lambda - \tan \delta \cos \alpha \Delta\omega, \\ \Delta\delta &= \cos \alpha \sin \omega \Delta\lambda + \sin \alpha \Delta\omega, \end{aligned}$$

where $\Delta\lambda$, $\Delta\omega$ are the effects on longitude and obliquity respectively.

Prove that if S be a star without precession in R.A., and P , K the poles of the equator and ecliptic respectively, then SP and SK will be at right angles.

5. If the square of the eccentricity e and the fourth power $\tan^{\frac{1}{2}} \omega$, where ω is the obliquity of the ecliptic, be neglected, show that the equation of time is approximately

$$\frac{12}{\pi} \{ 2e \sin (L - \omega) - \tan^2 \frac{1}{2} \omega \sin 2L \} \text{ hours,}$$

where L is the longitude of the sun, and ω the longitude of the perigee.

Show that the equation of time vanishes four times a year and that if L_1, L_2, L_3, L_4 , be the longitudes of the sun on the four occasions on which the equation of time vanishes,

$$L_1 + L_2 + L_3 + L_4 = n \cdot 180^\circ,$$

where n is an integer.

6. Show that the combined effect of the aberration and the annual parallax is to increase the longitude and latitude (λ , μ) of a star by

$$-K \sec \beta \cos (\odot - \lambda) + \sigma \sec \beta \sin (\odot - \lambda)$$

and

$$-K \sin \beta \sin (\odot - \lambda) - \sigma \sin \beta \cos (\odot - \lambda),$$

K , σ being the constants of aberration and annual parallax and \odot the longitude of the sun.

Show that the locus of all stars whose zenith distance at a given place and at a given instant are unaltered by aberration is an elliptic cone, one of whose circular sections is horizontal and the other is perpendicular to the ecliptic.

7. If δ and δ' are the true and apparent distances between a planet and the moon, α and α' the true and apparent altitudes (corrected for refraction) of the planet, β and β' of the moon, π_0 and σ_0 the equatorial horizontal parallaxes of the moon and planet for the place of observation, show that

$$\cos \delta = \frac{\cos \alpha \cos \beta}{\cos \alpha' \cos \beta'} \cos \delta' + \sin \alpha \sin \pi_0 + \sin \beta \sin \sigma_0,$$

very nearly.

8. Investigate the conditions for a lunar eclipse.

Show that the interval between the middle of an eclipse of the moon and the time of opposition is approximately

$$\frac{m \Delta}{m^2 + n^2 \cos \delta \cos \delta'} \text{ hours,}$$

where m and n are the differences of hourly motion of the moon and the centre of the earth's shadow in declination and right ascension respectively, Δ is the difference in declination of the moon and the centre of the earth's shadow at the time of opposition, and δ, δ' are the mean declinations of the shadow and the moon during the eclipse.

9 Neglecting the small inclination of the lunar orbit with the plane of the ecliptic, show that at a place in latitude ϕ , the daily retardation in the hour of rising of the moon when its declination is δ is

$$\sin \psi (\cos^2 \delta - \sin^2 \phi) - \frac{1}{2} \Delta \lambda.$$

where ψ is the inclination of the ecliptic of the horizon and $\Delta \lambda$ the daily increment of the moon's longitude.

Hence explain the phenomenon of the harvest moon. Show that near the equator the phenomenon will not be so marked as in the temperate regions, but that it will recur at each equinox.

10. Explain what quantities must be known in order to define the position of a planet at any time. Briefly describe how they are determined.

The orbits of two planets being supposed circular but not coplanar, prove that when they are stationary with regard to one another, the line joining them subtend the angle

$$\cos^{-1} \left[\frac{ab + \sqrt{ab}(a+b) \cos i}{a^2 + ab + b^2} \right],$$

at the sun's centre, where a and b are the radii and i the inclination of the orbits.

11. Discuss the transit instrument.

Briefly discuss the errors to which it is subject.

If the errors of collimation, level and deviation be α, β, γ respectively, show that a star will have its transit unaffected provided its zenith distance z at transit satisfies the equation

$$\sin \alpha + \sin \beta \cos z + \sin \gamma \cos \beta \sin z = 0$$

with a suitable convention as regards signs.

ASTRONOMY.

FIRST PAPER.

Examiner—DR. D. N. MALLIK, B.A., SC.D., F.R.S.E.

Candidates are required to give their answers in their own words as far as practicable.

Only six questions to be attempted.

The questions are of equal numerical value.

1. Prove that except within a few degrees of the horizon, the refraction can be expressed in the form

$$R = \frac{a}{1-a} \tan z \cdot \sum_{n=0}^{\infty} (-1)^n A_n \sec^{2n} z \int_0^1 u^n du,$$

where

$$A_n = \frac{1 \cdot 3 \cdot 5 \dots (2n-1)}{1 \cdot 2 \cdot 3 \dots n},$$

$$u = vx - aw + \frac{1}{2}v^2x^2 - avxw(2+vx),$$

$$a = \frac{c\rho_1}{1+2c\rho_1}, w = 1 - \frac{\rho}{\rho_1}, \frac{r}{a} = 1 + vx, v = \frac{h_1}{a},$$

h_1 is the pressure height, ρ_1 the density of the lowest layer and a the radius of the earth.

Show that

$$\int_0^1 u dw = v - \frac{1}{2}v,$$

for all laws of density.

2. Show that the equation of centre expressed as a Fourier series of the true anomaly v is

$$2 \sum_{n=1}^{\infty} \frac{1}{n} (-1)^{n+1} \tan^n \frac{1}{2} \phi (1 + n \cos \phi) \sin nv,$$

where the eccentricity $e = \sin \phi$.

Prove that the equation of centre is greatest when

$$v = \frac{1}{2}\pi + \frac{1}{4}e + \frac{21}{128}e^3 + \dots$$

3. At Greenwich sidereal time t the zenith distances of two stars of right ascensions α_1, α_2 and equal declination δ are observed to be z_1 and z_2 . Show that the west longitude of the place of observation exceeds $t - \frac{1}{2}(\alpha_1 + \alpha_2)$ by ϕ , where

$$\cot \phi = \cos \lambda \cot x \pm \sin \lambda \operatorname{cosec} x \tan z,$$

and z, x and λ are auxiliary angles given by

$$(i) \cot \lambda = \cot \delta \cos \frac{1}{2}(\alpha_1 - \alpha_2),$$

- (ii) $\sin \theta = \cos \delta \sin \frac{1}{2}(a_1 - a_2)$,
 (iii) $\tan x = \tan \frac{1}{2}(z_1 - z_2) \tan \frac{1}{2}(z_1 + z_2) \cot \theta$.
 (iv) $\cos z = \cos \frac{1}{2}(z_1 - z_2) \cos \frac{1}{2}(z_1 + z_2) \sec x \sec \theta$.

4. Show that aberration increases the longitude λ and latitude β of a star by

$$-k \cos (\odot - \lambda) \sec \beta - k e \cos (\omega - \lambda) \sec \beta,$$

and

$$-k \sin (\odot - \lambda) \sin \beta - k e \sin (\omega - \lambda) \sin \beta$$

respectively, where e is the eccentricity of the earth's orbit, ω the longitude of the sun's perigee and \odot the longitude of the sun.

Assuming the earth's orbit to be circular, show that the distance between two stars at β, λ and β_0, λ_0 respectively is not altered by aberration if the sun's longitude \odot satisfies the equation

$$\cos \beta \sin (\odot - \lambda) + \cos \beta_0 \sin (\odot - \lambda_0) = 0.$$

5. Prove Delambre's formula for the reduction of circummeridian altitudes to the meridian

$$z = z_1 + \frac{y}{\sin z_1} - \frac{y^2 \cot z_1}{2 \sin^2 z_1} + \frac{1}{6} (1 + 3 \cot^2 z_1) \frac{y^3}{\sin^3 z_1},$$

and

$$y = 2 \cos \phi \cos \delta \sin^2 \frac{1}{2}(t - a),$$

where z is the zenith distance deduced from observations, z_1 the zenith distance when the star is on the meridian, ϕ the latitude of the place, (α, δ) the R.A. and decl. of the star, and t the sidereal time of observation.

Explain how this formula can be used for the determination of the latitude of a place.

6. If ϕ be the latitude of the observer, π_ϕ the horizontal parallax of the moon at latitude ϕ , (α, δ) and (α', δ') the geocentric and apparent R.A. and decl. of the moon, prove that the effect of the geocentric parallax on the declination of the moon is

$$\frac{\beta \sin \pi_\phi \sin (\delta - \gamma)}{\sin 1''} + \frac{\beta^2 \sin^2 \pi_\phi \sin 2(\delta - \gamma)}{\sin 2''} + \frac{\beta^3 \sin^3 \pi_\phi \sin 3(\delta - \gamma)}{\sin 3''},$$

where

$$\tan \gamma = \tan \phi \sec \{t - \frac{1}{2}(\alpha' + \alpha)\} \cos \frac{1}{2}(\alpha' - \alpha),$$

$$\beta = \sin \phi \operatorname{cosec} \gamma,$$

t being the sidereal time.

Explain how this formula can be used to investigate the distance of the moon from the earth.

7. Calculate the Besselian elements and show how they are to be applied to determine the circumstances of a solar eclipse at any particular station.

Prove that if all the quantities be calculated from a properly chosen epoch T , the Greenwich mean time of the commencement and ending of the solar eclipse are $T + t_1$ and $T + t_2$, where

$$nt_1 = -m \cos (M - N) - L \cos \psi,$$

$$nt_2 = -m \cos (M - N) + L \cos \psi,$$

$$L \sin \psi = m \sin (M - N),$$

in which L is the distance of the observer from the axis of the penumbra

and m, n, M, N are four auxiliary quantities which you are required to specify.

8. Explain as fully as you can Halley's method of determining the sun's distance by the transit of Venus across the sun.

9. Prove that, for a star which rises to the north of east the rate at which the azimuth changes is the same when it rises as when it is due east, and is a minimum when the azimuth is

$$\sin^{-1} \left\{ \tan \lambda \cdot \sin \frac{\alpha}{2} \sqrt{\cos \alpha} \right\}$$

north of east, where λ is the latitude and α the altitude of the star when due east

10. If the effects of precession and proper motion is to change the mean place (a_0, δ_0) of a star to (a, δ) in time t , prove that

$$a = a_0 + (p_a + \mu_a) t + \frac{1}{2} \Delta_a t^2,$$

$$\delta = \delta_0 + (p_\delta + \mu_\delta) t + \frac{1}{2} \Delta_\delta t^2,$$

where $p_a = m + n \sin a_0 \tan \delta_0$, $p_\delta = n \cos a_0$,

$$m = k \cos \omega, \quad n = k \sin \omega,$$

$$\Delta_a = \frac{dm}{dt} + \frac{dn}{dt} \sin a_0 \tan \delta_0 + n(p_a + 2\mu_a) \cos a_0 \tan \delta_0$$

$$+ n(p_\delta + 2\mu_\delta \sin a_0 \sec^2 \delta_0 + 2\mu_a \mu_\delta \tan \delta_0,$$

$$\Delta_\delta = \frac{dn}{dt} \cos a_0 - n(p_a + 2\mu_a) \sin a_0 - \frac{1}{2} \mu_a^2 \sin 2\delta_0,$$

k is the constant of precession, ω the obliquity of the ecliptic, and (μ_a, μ_δ) the proper motion in R.A. and decl. respectively.

11. Explain the construction of a map on Mercator's system.

If the equator be taken as axis of x , the first meridian as axis of y , shew that l, λ the longitude and latitude satisfy

$$l = x/a \cosh (y/a) = \sec \lambda, \text{ or } \sinh (y/a) = \tan \lambda,$$

and that the scale of the map is

$$\left(\frac{a}{R} \right)^2 \sec^2 \lambda$$

where R is the earth's radius.

If a great circle have a pole at (x_0, y_0) , prove that its equation on the map is

$$\cos (x/a - x_0/a_0) + \sinh (y/a) \sinh (y_0/a) = 0.$$

If the circle be a small circle of angular radius ζ , then its equation is

$$\cos (x/a - x_0/a_0) + \sinh (y/a) \sinh (y_0/a) = \cos \zeta \cosh (y/a) \cosh (y_0/a).$$

ASTRONOMY.

SECOND PAPER.

Examiner—BABU SUDHANSUKUMAR BANERJEE, M.A.

Candidates are required to give their answers in their own words as far as practicable.

Only six questions to be attempted.

The questions are of equal numerical value.

1. Show that the reduction of the latitude and the radius r of the terrestrial spheroid can be expressed in series of the type

$$\phi - \phi' = -q \sin 2\phi - \frac{1}{2}q^2 \sin 4\phi - \text{etc.},$$

$$\log r = \log \frac{1+f^2}{1+f} + (m-m') \cos 2\phi - \frac{1}{2}(m^2-m'^2) \cos 4\phi + \text{etc.},$$

where

$$m = \frac{1-f^2}{1+f^2}, \quad m' = \frac{1-f}{1+f}, \quad q = \frac{e^2}{e^2-2}, \quad f = \sqrt{1-e^2},$$

e being the eccentricity. *

If the lengths of a degree of the meridian measured at latitudes 60° and 45° be s_1 and s_2 respectively, prove that the ellipticity of the earth regarded as a spheroid of revolution is $\frac{1}{3}(1-s_2/s_1)$.

2. A star of declination δ is observed to have zenith distances z_1, z_2 at instants separated by an interval 2τ ; show that the latitude ϕ can be determined from the equation

$$\sin\left(\frac{\pi}{4} - \frac{1}{2}\theta\right) = \sin \frac{1}{2}(z+x) \sin \frac{1}{2}\theta \operatorname{cosec} \epsilon,$$

where $x, d, z, \theta, \epsilon$ are auxiliary angles given by

- (i) $\tan x = \cot \delta \cos \tau$,
- (ii) $\sin d = \cos \delta \sin \tau$,
- (iii) $\cos z = \cos \frac{1}{2}(z_1+z_2) \cos \frac{1}{2}(z_1-z_2) \sec d$,
- (iv) $\sin \theta = \sin \frac{1}{2}(z_1+z_2) \sin \frac{1}{2}(z_1-z_2) \operatorname{cosec} z \operatorname{cosec} d$.
- (v) $\tan \epsilon = \sin \frac{1}{2}(z+x) \operatorname{cosec} \frac{1}{2}(z-x) \tan \frac{1}{2}\theta$.

3. If the refraction is taken as $k \tan z$, prove that the correction to be added to the apparent distance D in seconds of arc between two neighbouring stars is in seconds of arc

$$kD(1 + \cos^2 \theta \tan^2 z) \sin 1'',$$

where z is the zenith distance of the principal star and θ is the angle between the arc joining the stars and the arc from the principal star to the zenith

Prove that, within the limits of zenith distance in which the refraction may be taken as $k \tan z$, the apparent place of a star describes, each sidereal day, a conic section, which is an ellipse or hyperbola according

as $\sin^2 \delta \geq \cos^2 \delta$, where δ is the declination of the star and ϕ the latitude of the place.

4. If (z', a') and (z, a) be the apparent and geocentric zenith distance and azimuths respectively of the moon's centre, π_ϕ the horizontal parallax for latitude ϕ , and $\phi - \phi'$ the reduction of latitude, prove the following formula for the reduction of zenith distance

$$z' - z = \sum_{n=1}^{\infty} \frac{1}{n} \sin^n \pi_\phi \sec^n \gamma \cos^n (\phi - \phi') \sin n(z - \gamma),$$

where

$$\tan \gamma = \tan (\phi - \phi') \cos \frac{1}{2}(a' + a) \sec \frac{1}{2}(a' - a).$$

Show also that if (z', a') denote the apparent zenith distance and azimuth of the limb and not of the centre

$$z' - z = \sin^{-1} [\sin \pi_\phi \sec \gamma \cos (\phi - \phi') \sin (z' - \gamma) \mp \sin S],$$

where S is the moon's geocentric semi-diameter, the upper sign being used for the upper limb and the lower sign for the lower limb.

5. Show that the planetary aberration is

$$\frac{v_0}{\mu} \sqrt{r_0} \left(\frac{\cos E}{\sqrt{r}} + \frac{\cos P}{\sqrt{r'}} \right),$$

where r, r' are the distances of the earth and the planet from the sun, E is the elongation of the planet from the sun, as seen from the earth, and P that of the earth from the sun as seen from the planet, v_0 the velocity of a planet of the system at the distance r_0 , and μ the velocity of light.

Two planets move in coplanar orbits of radii R, r ; show that when the difference of their longitudes is θ , the aberration is proportional to

$$\frac{(\sqrt{R} + \sqrt{r}) \{ (R - \sqrt{Rr} + r) \cos \theta - \sqrt{Rr} \}}{\sqrt{Rr} (R^2 - 2Rr \cos \theta + r^2)}.$$

6. Supposing the planes of the earth's equator and the orbit of Mercury to coincide with the ecliptic, show that to an observer in latitude ϕ , on the same meridian with an observer at the equator who sees Mercury projected on the centre of the sun's disc at midday, the duration of a transit will be $2h$ hours nearly, where

$$r(r-b) \omega h + b\rho \cos \phi \sin \frac{\pi h}{12} = \sqrt{R^2(r-b)^2 - b^2 \rho^2 \sin^2 \phi},$$

r, b being the radii of the orbits of the earth and Mercury, R, ρ the radii of the sun and the earth, and ω the difference of the apparent horary motions of Mercury and the sun.

7. Supposing that at n epochs t_1, t_2, t_3, \dots , extending over a year, measurements D_1, D_2, D_3, \dots of the apparent distances between a star S which has a parallax σ and a star S' which has no parallax have been obtained, prove by the method of least squares that x , the mean distance of the two stars at the beginning of the year and y the annual rate at which their proper motions affect the distance as well as the annual parallax σ , can be obtained by solving the equations

$$nx + y \sum t_1 - \sigma m \sum \cos (\odot_1 - M) - \sum D_1 = 0,$$

$$x \sum t_1 + y \sum t_1^2 - \sigma m \sum t_1 \cos (\odot_1 - M) - \sum t_1 D_1 = 0$$

$$x \sum \cos (\odot_1 - M) + y \sum t_1 \cos (\odot_1 - M) - \sigma m \sum \cos^2 (\odot_1 - M)$$

$$- \sum D_1 \cos (\odot_1 - M) = 0,$$

where \odot_1, \odot_2 , etc., are the sun's longitudes and the summations denoted by Σ extend from 1 to n, m and M are two constants for the stars which you are required to specify in terms of the coordinates of S and the position angle of S' .

8. Explain as fully as you can the method of determining longitude by lunar distances.

9. At a given time during a solar eclipse find, using Bessel's transformations, the curve on the surface of the earth from every point of which a contact of the sun's and moon's limbs may be observed.

Show that, neglecting the sun's parallax, the equations to determine the place where a solar eclipse is central at a given time are

$$\frac{\cos \phi \cos l - \rho \cos \delta}{\cos (a' - a) \cos \delta'} = \frac{\cos \phi \sin l}{\sin (a' - a) \cos \delta'} = \frac{\sin \phi - \rho \sin \delta}{\sin \delta'},$$

where $(\alpha, \delta), (\alpha', \delta')$ are the geocentric right ascensions and declinations respectively of the moon and the sun, ρ the ratio of the moon's distance to the earth's radius, ϕ the latitude of the place and l the hour angle of the moon.

10. Show how the small errors of adjustment in the axis of an equatorial telescope may be determined.

An equatorial telescope whose axis is adjusted to the apparent pole is pointed to a star very near the meridian; show that, if the telescope is to follow the star accurately, the rate of the clock must be diminished in the ratio of

$$1 - k \cot \lambda \tan z : 1,$$

where λ is the latitude of the place of observation, and k the constant of refraction.

11. Let x, y, z be the coordinates of a star referred to the equatorial system of axes. Assuming that the ecliptic is fixed, and that precession may be represented as a revolution of the pole of the equator round the pole of the ecliptic at an angular rate q , prove that if ξ, η, ζ be the coordinates of the star referred to the new position of the axes after an interval of t years,

$$\xi = x \cos qt - y \cos \omega \sin qt - z \sin \omega \sin qt,$$

$$\eta = x \cos \omega \sin qt + y (\cos^2 \omega \cos qt + \sin^2 \omega) + z \cos \omega \sin \omega (\cos qt - 1),$$

$$\zeta = x \sin \omega \sin qt + y \cos \omega \sin \omega (\cos qt - 1) + z (\sin^2 \omega \cos qt + \cos^2 \omega),$$

where ω is the obliquity of the ecliptic.

Show that on a given day all stars which have the greatest displacement of apparent position by precession and nutation must lie on a great circle, whose equation is

$$\cos \alpha \cos \delta \Delta \omega + (\sin \delta \cos \omega - \sin \alpha \cos \delta \sin \omega) (qt + \Delta L) = 0,$$

where $\Delta L, \Delta \omega$ are the nutations in longitude and obliquity respectively.

ELASTICITY.

FIRST PAPER.

Examiner—DR. C. E. CULLIS, M.A., PH.D.*Answer EIGHT questions only.**The questions are of equal numerical value.*

1. Show that there is one and only one homogeneous strain which converts a given ellipsoid S and three given conjugate radii of S into a given ellipsoid S' and three given conjugate radii of S' .

Hence prove the existence of three 'permanently rectangular lines' in any strain about O and find the equations of the two strain ellipsoids whose principal axes lie respectively along three permanently rectangular lines in their positions before and after the strain. If the strain is pure, show that the permanently rectangular lines are unrotated by it. Under what circumstances is the converse true?

2. Obtain the general equations of a rotation about the origin O in the forms

$$x' = l_1x + l_2y + l_3z, \quad y' = m_1x + m_2y + m_3z, \quad z' = n_1x + n_2y + n_3z,$$

where the coefficients are the direction-cosines of three mutually perpendicular lines.

Show that every such rotation is one about a straight line through O . Find the equations of the two possible axes of rotation and the angle of rotation appropriate to each.

3. Define the six strain-components and the three rotation-components of a small homogeneous strain with reference to a given set of rectangular axes, and show how to transform them to any other set of rectangular axes.

When the strain-components with reference to any one set of rectangular co-ordinate axes are given, find the cubic equation whose roots are the principal extensions.

4. Show that in any body at rest or in motion the six equations of the types

$$\rho X + \frac{\partial X_x}{\partial x} + \frac{\partial X_y}{\partial y} + \frac{\partial X_z}{\partial z} - \rho f_x, \quad Y_z - Z_y = 0$$

must be satisfied at every inside point. Find also the three equations which must be satisfied at every point of the bounding surface.

5. Determine the stress-strain relations for any isotropic body and for an isotropic solid. What conclusions can you draw from the latter relations when the stress is

(1) a uniform normal traction T ,

(2) a simple traction T parallel to Ox ?

6. In an isotropic right cylinder the line of centroids of the cross-sections is Oz , and Ox and Oy are parallel to principal axes of inertia of a cross-section at its centroid. The cylinder is held in a slightly strained state, the only applied forces being tractions on its ends which are statically equivalent to couples about Ox . Show that a system of

stresses, strains and displacements consistent with these conditions is given by

$$u=k\sigma xy, v=\frac{1}{2}k(z^2-\sigma x^2-\sigma y^2), w=-kyz,$$

where k is any small constant, and σ is Poisson's ratio.

Prove that the strained central line is approximately a circle; find the surface into which the neutral plane is strained; and determine the ratio of the bending moment to the curvature at any point of the strained central line.

7. Using polar co-ordinates r, θ, ϕ , show that if the displacements are purely radial, the principal axes of the strain at any point are in the directions of increase of r, θ, ϕ , and that the corresponding principal extensions are

$$\frac{\partial u}{\partial r}, \frac{u}{r}, \frac{u}{r}.$$

If the body is isotropic, show that the applied forces must be purely radial, and determine the equation of equilibrium.

An isotropic solid bounded externally by a sphere of radius r and internally by a concentric sphere of small radius a is in equilibrium under uniform pressures p and p_0 over the outer and inner boundaries. If there is no displacement at the outer boundary, show that

$$p = \frac{3}{4} \frac{\lambda + 2\mu}{\mu} \frac{a^3}{r^3} \cdot p_0.$$

8. If α, β, γ are orthogonal co-ordinates such that

$$ds^2 = A^2 d\alpha^2 + B^2 d\beta^2 + C^2 d\gamma^2,$$

and if i, j, k are unit vectors parallel to the normals to the co-ordinate surfaces at the point (α, β, γ) , show that the necessary and sufficient condition for the equilibrium of a strained body (apart from the boundary conditions) is that

$$\frac{\partial}{\partial \alpha} [BC(ip_{\alpha\alpha} + jp_{\alpha\beta} + kp_{\alpha\gamma})] + \dots + \dots + \rho ABC [iF_\alpha + jF_\beta + kF_\gamma] = 0$$

at every point, the p 's being the stress-components, and the F 's being the components of the applied force per unit mass.

From this vector equation deduce the three scalar equations of equilibrium of an isotropic body in terms of the displacement-components.

9. Enunciate Hamilton's Principle and apply it to find the equations of motion and the boundary conditions for a slightly strained body on the hypothesis that there is a strain-energy function.

10. Show that when the only body force is (X_0, Y_0, Z_0) applied to a small volume surrounding the origin, a particular solution of the equations of equilibrium for an isotropic solid at all points outside that small volume is given by the three equations of the type

$$u = AX_0 \cdot \frac{1}{r} + B(xX_0 + yY_0 + zZ_0) \cdot \frac{x}{r^3},$$

where A and B are certain constants depending on ∂ and μ .

11. An isotropic solid is in equilibrium, the only applied forces being tractions on its bounding surface. If the displacements u, v, w at the bounding surface are given, show that the volume dilatation at any point O taken as origin is given by

$$A \Delta_0 = \mu \int (X'u + Y'v + Z'w) dS,$$

where A is a constant, and X'' , Y'' , Z'' are the surface tractions which would equilibrate a uniform normal traction $\frac{1}{a^3}$ over the surface of a small spherical cavity of radius a having O as centre, when there is no displacement at the bounding surface.

By considering the special case in which the body is a solid sphere under uniform pressure, show that

$$A = (\lambda + 2\mu) \pi.$$

ELASTICITY.

SECOND PAPER.

Examiner—DR. GANES PRASAD, D.Sc.

Candidates are required to give their answers in their own words as far as practicable.

Answer any SIX questions.

The questions are of equal numerical value.

1. Describe the method of series and the method of singularities as applied to the solution of problems in the theory of Newtonian potentials.

2. In an indefinitely extended isotropic solid, there is a spherical cavity which is free from traction. Assuming that, at a great distance from the cavity, the displacement is given by

$$(u, v, w) = (sy, 0, 0),$$

where s is a constant, find the displacement at any point.

3. Investigate the displacement in a circular cylinder due to given displacements at the curved surface, when the tractions that maintain these displacements are adjusted so that there is no longitudinal displacement.

4. Explain briefly how you will solve the problem of the free vibrations of an isotropic solid sphere of radius a .

Prove that, for "rotatory vibrations," the frequency equation is

$$\tan ka = \frac{3ka}{3 - k^2 a^2}.$$

5. Waves are propagated in a medium in which the kinetic energy has the form

$$\iiint \frac{1}{2} \left\{ \rho_1 \left(\frac{\partial u}{\partial t} \right)^2 + \rho_2 \left(\frac{\partial v}{\partial t} \right)^2 + \rho_3 \left(\frac{\partial w}{\partial t} \right)^2 \right\} dx dy dz,$$

while the strain-energy-function has the form appropriate to an isotropic elastic solid. Assuming that the medium is *nearly* incompressible, prove that the wave-surface is the envelope of the plane

$$lx + my + nz = c$$

subject to the condition

$$\frac{l^2}{c^2\rho_1-\mu} + \frac{m^2}{c^2\rho_2-\mu} + \frac{n^2}{c^2\rho_3-\mu} = 0.$$

6. Explain briefly how you will solve the "torsion problem" for a given boundary.

If the boundary is an ellipse with semi-axes a and b , prove that the twisting couple is

$$\frac{\mu\tau\pi a^3b^3}{a^2+b^2}.$$

7. Obtain the equation of the extensional vibrations of a bar in the form

$$\rho \left(\frac{\partial^2 w}{\partial t^2} - \sigma K^2 \frac{\partial^4 w}{\partial s^2 \partial t^2} \right) = E \frac{\partial^2 w}{\partial s^2}.$$

8. If χ is a function of x, y , such that it satisfies the differential equation

$$\frac{\partial^2 \chi}{\partial x^2} + \frac{\partial^2 \chi}{\partial y^2} = 0,$$

at every point of a hollow tube, and the equation

$$\frac{\partial \chi}{\partial \nu} = - \left\{ \frac{1}{2} \sigma x^2 + (1 - \frac{1}{2} \sigma) y^2 \right\} \cos(x, \nu) - (2 + \sigma) xy \cos(y, \nu)$$

at all points of the bounding curves, find the value of χ . [ν = an element of normal, and the cross section, bounded by concentric circles].

9. Obtain the equation of equilibrium of a beam, uniformly loaded and supported at both ends.

How is the problem modified, if the ends are built in? Compare the two results.

10. Prove the theorem of three moments [in the case of a continuous bar supported at any number of points].

When the spans are equal, show that the difference equation can be written in the form

$$M_{n-1} + 4M_n + M_{n+1} + \frac{1}{2}wb^2.$$

Proceed to solve this equation.

11. Show that, if rotatory inertia is neglected, the equation of flexural vibration of a rod is of the form

$$u'' = a^2 \cdot \frac{\partial^4 u}{\partial s^4}.$$

Show how to solve this equation and specify the conditions that obtain at the ends, according as they are free or clamped.

12. Prove that the kinetic energy of a rod performing torsional vibration is of the form

$$\frac{1}{2} \rho \left[\omega k^2 \psi'^2 + \left(\frac{\partial \psi}{\partial s} \right)^2 \int \phi^2 d\omega \right]$$

per unit length, while the potential energy (per unit length) is

$$\frac{1}{2} C \left(\frac{\partial \psi}{\partial s} \right)^2,$$

where the constant C and the function ψ depend on the boundary.

Explain the simplification that arises when the rod is of circular cross section and the axis of rotation coincident with the central line.

EXPERIMENTAL PSYCHOLOGY.

FIRST PAPER.

Examiner—S. C. MAHALANOBIS, Esq., B.Sc., F.R.S.E.

Only six questions to be answered.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal numerical value.

1. Discuss fully the conflict between the doctrine of "apperception" held by Wundt and his school, and that of "association" of English psychology.

2. Give an account of the Kinæsthetic theory. Criticise the application of Kinæsthesia to emotional expression and to emotion itself.

3. Describe experiments by which you can determine the time taken up by the *central (brain or mental) process alone*, in a reaction from sense to muscle.

4. Give an analysis of "Memory." Criticise the theories that have been adduced to explain the different phases of memory.

5. Discuss the current hypotheses regarding the origin of our spatial ideas of touch and sight.

6. Give an account of recurrent vision-theories of adaptation.

7. Examine Raman y Cajal's interpretation of the decussation of the paths of nervous conduction; explain fully the significance of Wundt's statement that every psycho-physical function that falls under our observation is a synergic co-operation of a number of peripheral functions.

8. Describe the plethysmograph and give a scheme illustrating its use in experimental psychology. Estimate the value of the plethysmographic method in determining affective qualities.

9. Give a brief historical survey of the development of Physiological and Experimental Psychology in the nineteenth century.



EXPERIMENTAL PSYCHOLOGY.

SECOND PAPER.

Examiner—A. S. M. PEEBLES, I.M.S.*Candidates are required to give their answers in their own words as far as practicable.**Only FOUR questions to be attempted.**The questions carry equal marks.*

1. Define Weber's law. Give specific instances of its application and explain, with examples, its use in detecting abnormal existing states in psychological enquiries.

2. Discuss Imagination. What are the most common forms of classification from the point of view of the psychologist, and what are the relations of imagination towards the intellect in—

(a) a normal individual;

(b) an abnormal individual.

3. What is meant in psychology by Attention? What are the most common forms of abnormality you may find in attention?

4. Define "Association of ideas." How would you conduct an experiment in this relation, and what deductions would you draw from the result of your experiment?

5. To what abnormalities is the will liable? Give specific instances.

EXPERIMENTAL PSYCHOLOGY.

THIRD PAPER.

Examiner—DR. BRAJENDRANATH SEAL, M.A., PH.D.*Candidates are required to give their answers in their own words as far as practicable.**The questions carry equal marks.*

1. Examine the phenomena of Tropism in relation to those of Instinct and Reflexes simple and compound.

2. Trace the development of the neo-pallium and of memory in the animal series.

Or,

Trace the gradual development *either* of foresight and co-ordination, or of variability of response and choice, in the ascending scale of animal life.

3. State and examine the evidence for any two of the following:—(1) Driesch's Entelechy, (2) McDougall's Animism, and (3) Bergson's *élan vital*.

Or,

Describe briefly the chick's experience of pecking at a worm (a) for the first time, and (b) for the second time, from the standpoints of Lloyd, Morgan, Stout, McDougall, Myers, Loeb and Sherrington.

4. Compare and contrast the social psychology of (1) ants and (2) bees with that of man.

Or,

Examine the phenomena (1) of pairing, (2) of herding, and (3) of mutual aid, as psychological factors influencing animal evolution.

5. State and examine briefly the evidence for the existence among animals of the rudiments of any four of the following:—(1) language, (2) general ideas, (3) conceptual or other reasoning, (4) distinction between subject and object, (5) sense of duty, (6) sense of beauty, (7) admiration and homage, (8) ownership and property, and (9) animistic belief, and a sense of the uncanny.

Or,

Discuss the abnormal psychology of animals with special reference to dreams, hallucinations, mania, panic, suggestibility and hypnotic control, must and seasonal heat. Devise a scheme of observations and experiments with reference to the hypnotisability of animals.

EXPERIMENTAL PSYCHOLOGY.

FOURTH PAPER.

Examiner—DR. N. N. SEN GUPTA, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

GROUP A.

Only ONE question to be answered.

1. "Childhood showeth the man as morning showeth the day." 20
Elaborate the psychological implications of the statement and discuss them in the light of the questions of heredity and physical growth.
2. "A child is but an imperfect adult" Discuss the statement in 20
the light of the facts of physiological development. How does the child differ from the abnormal adult?
3. What are the main difficulties that beset the existing methods 20
of child-study? Outline a method which is likely to obviate the difficulties.

GROUP B.

Only THREE questions to be answered.

4. Estimate the views of Rousseau, Froebel and Montessori con- 15
cerning the nature of children's mind.
5. It is often urged that the behaviour of the child, at the earliest 15
stage, is purely reflex; then it is instinctively and emotionally determined; finally it comes to be regulated by intellect. What is your view about the question?

6. What are the psychological factors that determine the child 15
(a) in learning the mother-tongue, (b) in its emotional attitudes towards fellow creatures, (c) in the development of abstract sentiments such as piety and justice?

7. The play-instinct, it is said, is the most essential constituent 15
of child's mind; hence, the child must learn through play. Discuss the view with special reference to the biological and sociological significance of play.

8. What are the causes of: lack of precision in movements, want 15
of precision in the use of words, sudden changes of moods, in childhood? What light do the facts throw upon the problem of mental development?

GROUP C.

Only ONE question to be answered.

9. Discuss the causes of stuttering, lisping and habitual mispronunciation of letters by grown-up children. 15

10. Discuss the principles underlying the Binet-Simon and De Sanctis tests for singling out the feeble-minded. 15

11. State the principal causes of Deaf-mutism. What are the various forms of Deaf-mutism? What measures would you suggest for improving the condition of the defective? 15

GROUP D.

12. Write a short essay on one of the following topics:— 20

- (a) Legal responsibility of children, from the psychological point of view.
- (b) Transference of acquired mental abilities with special reference to classical and mathematical education.
- (c) Experimental Pedagogy.

PHYSICS.

FIRST PAPER.

Examiner—D. B. MEEK, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

Answer question 10 and four others.

1. Give an account of the theory of magnetism with special reference to diamagnetism.

2. Discuss the question of the determination of absolute electric standards in connection with an account of any recent determination of the standard ohm or of a standard E.M.F.

3. Give an account of the determination of the length of Hertzian Waves.

4. Give a simple theory of the Quadrant Electrometer.

A condenser is formed of two thin concentric spherical shells, radii a and b . A small hole exists in the outer shell through which an insulated

wire passes connecting the inner shell with a third conductor of capacity c , at a great distance r from the condenser. The outer shell of the condenser is put to earth and the charge on the two connected conductors is E . Prove that approximately the force on the third conductor is

$$ac^2E^2 / \left(\frac{ab}{a-b} + c \right)^2 r^3.$$

5. Explain the methods of solution by images and inversion. Take as an example for illustration a sphere at zero potential under the influence of a point charge outside it.

6. Prove that when a steady current flows through a network of conductors in which no discontinuities of potential occur the currents are distributed in such a way that the rate of generation of heat in the network is a minimum subject only to the condition imposed by Kirchhoff's first law.

The resistances of three wires BC , CA , AB , of the same uniform cross section and material are a , b , c respectively. Another wire from A of constant resistance d can make a sliding contact with BC . If a current enter at A and leave at the point of contact with BC , show that the maximum resistance of the network is

$$\frac{(a+b+c)d}{a+b+c+4d}$$

and determine the least resistance.

7. Describe some system of vector notation and express Green's and Stokes' theorems in that notation. Prove one of these theorems and give the physical interpretation of the one chosen.

8. A point charge c is at a distance of 2.5 cms. from an infinite plane separating two dielectrics whose S.I.Cs. are in the ratio 1.5. Find the equation to the lines of force in both media and draw them as accurately as you can.

9. Give a theory of the Peltier and Thompson effects and explain completely Tait's thermoelectric diagram.

10. Write an essay on the Electro-Magnetic Theory of Light using the following heads for guidance.

- (a) The idea of Faraday tubes,
- (b) Motion of Faraday tubes,
- (c) Propagation of a disturbance,
- (d) Reflection, Refraction and Total Reflection,
- (e) Experimental Evidence.

PHYSICS.

SECOND PAPER.

Examiner—P. MAHALANOBIS, ESQ., B.Sc.

SIX questions to be attempted, the essay counting as two ; but considerably fuller treatment will be expected in the essay.

Candidates are required to give their answers in their own words as far as practicable.

1. Give an account of the determination of the charge of an electron, dealing with the variation of e/m with velocity.
 2. Give a short account of ionisation in gases, with a brief outline of the theory of discharge through gases.
 3. Give a short account of the theory of radio-active transformations.
 4. Give as complete an account as you can of the mathematical theory of the production of X-rays, with experimental verifications.
 5. Criticise the universal application of the Principle of Conservation of Energy with special reference to the electro-magnetic field.
 6. Discuss fully the motion of an electron through space, dealing with its electric and magnetic fields and its electromagnetic mass.
 7. Find an expression for the energy of a magnetic field and also for the dissipation of energy in a specimen of iron, when it is put through a magnetic cycle.
 8. A hollow sphere of soft iron is placed in a uniform magnetic field. Find an expression for the magnetic field inside and outside. What is the practical application ?
 9. Give a complete theory of induction in a pair of circuits. The resistance and self-induction of a coil are R and L , and its ends A , B , are connected with the electrodes of a condenser of capacity C , by wires of negligible resistance. There is a current $I \cos pt$ in a circuit connecting A and B and the charge of the condenser is in the same phase as this current. Find charge at any time, and also current in the coil.
 10. Write an essay on any *one* of the following subjects :—
 - (i) Theory of Relativity.
 - (ii) Positive Rays.
 - (iii) Photo-Electricity and electron theory of metallic conduction.
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PHYSICS.

THIRD PAPER.

Answer no more than THREE questions from each half.

Write the answers to the two halves in SEPARATE books.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal numerical value.

FIRST HALF.

Examiner—DR. D. N. MALIK, B.A., SC.D., F.R.S.E.

1. A self-luminous sphere of radiating power I and angular radius a illuminates another body. Prove that the illumination at any point is $I \sin^2 a \cos z$, where z is the zenith distance of the centre of the illuminating body.

A bright point is placed at a distance r from the centre of a sphere whose radius is a . Show that the average illumination of the surface of the sphere is

$$\frac{I}{a^2} \frac{r - \sqrt{r^2 - a^2}}{r - a}.$$

Or,

Write what you know about the recent investigations on the mechanical equivalent of light.

2. Determine the cardinal point of a thick double convex lens in air, and trace the changes on the character of the lens, if the thickness is gradually increased.

Or,

If two combinations of lenses are taken as one

$$\frac{1}{m} = u \frac{d}{f_1 f_2} - \frac{f_1}{f_2}, \quad m = v \frac{d}{f_1 f_2} - \frac{f_2}{f_1},$$

where d is the distance between the second focus of the first and the first focus of the second. u, v are measured outwards from the combination from the first focus of the first and from the second focus of the second respectively, f_1, f_2 the focal lengths of the combinations respectively.

3. Write a note on spherical aberration, stating what special points should be attended to in the case of wide-angled photographic objectives.

Or,

Trace the path of the rays in an astronomical telescope provided with Ramsden's Eyepiece. If x be the distance from the object glass to the first principal focus of the eyepiece and y the distance of the eye-ring from the second principal focus of the eyepiece, d the distance of the observer's most distinct vision (the eye at the eye-ring): show that, if the instrument be used to view a very distant object,

$$xy = \frac{2}{16} f^2 = (F-x)(d-y).$$

magnification

$$= \frac{4}{3} \frac{F(d-y)}{df} = \frac{3}{4} \frac{Ff}{d(F-x)},$$

and the length of the instrument $= x + \frac{1}{4}f$

$$\left[\begin{array}{ll} Ff \text{ of the Objectglass} & = -F \\ \text{and the Eyepiece} & = -f, = f. \end{array} \right.$$

4. Prove the following statement:—

“A combination which consists of several separated systems is only perfectly achromatic when each system is perfectly achromatic.”

Discuss its practical application to eyepieces.

5. Show how to find the characteristic function in the simplest form. Hence find the focal lines of a small pencil after refraction through a prism.

Or,

A thin pencil of light issues from a point, is incident on a prism of refractive index μ , and transverse, a distance d through it, show that, in general, there are two images of the object point and only one image is formed when the distance of the point from the first surface of the prism is S .

$$S = \frac{d}{\mu} \frac{\cos^2 \phi (\cos^2 \psi' - \cos^2 \psi)}{\cos^2 \phi \cos^2 \psi' - \cos^2 \phi' \cos^2 \psi},$$

ϕ, ψ, ψ', ϕ' being the usual notation.

6. Give the complete theory of the rainbow.

SECOND HALF.

Examiner—BABU PHANINDRANATH GHOSH, M.A.

1. Prove the principle of rectilinear propagation of light.

Verify that the displacement produced at a point O by an element ds of a primary infinite plane wave

$$\cos \frac{2\pi}{\lambda} (Vt - r)$$

is

$$-\frac{ds}{\lambda r} \cdot \sin \frac{2\pi}{\lambda} (Vt - r).$$

2. Discuss the theory of Cornu's spiral in connection with problems of diffraction, illustrating it by an example.

3. Write an essay on polarisation, giving as complete an account as you can from both experimental as well as theoretical standpoint.

4. Discuss the principle of interference, explaining the exact conditions under which the phenomenon is observable. Does it throw any light as to the transverse nature of optical vibrations?

In a Fresnel biprism show that the breadth of bands are equal to

$$\frac{\mu \lambda d}{(\tau + \mu a)(\mu - 1) \sin 2a},$$

where τ is the thickness of the prism, a the distance of the luminous point from the prism.

Briefly indicate any practical difficulties in the experiment.

PHYSICS.

FOURTH PAPER.

Examiner—C. V. RAMAN. ESQ., M.A.

Answer no more than SIX questions.

Question 11 counts as two questions.

The questions carry equal marks.

1. A parallel beam of light falls upon a screen in which there are two wide parallel slits, and the transmitted light is viewed through an eye-piece. Give the theory of the phenomena observed and describe the effect of moving the eye-piece further and further away from the screen.

2. Light from a distant monochromatic source of finite angular width falls upon a film of air enclosed between two transparent plates, and the transmitted light is viewed through a telescope focussed for parallel rays. Give the theory of the phenomena observed, and discuss the effect of increasing the reflecting power of the surfaces enclosing the film.

3. Describe the construction of Michelson's Echelon Grating and the adjustments necessary in practical use. Show how the resolving power of the instrument may be calculated and depends upon the constants of the instrument.

4. Find the equation of the wave-surface in a uniaxial crystal, following the procedure adopted by Fresnel. How has the form of the wave-surface been verified in detail?

5. Describe (with diagrams) any modern form of apparatus for accurate polarimetric work, giving full details of construction and the theory.

6. Explain generally how the optical constants of a metal may be determined. What theoretical explanation has been suggested for the refractive index being less than unity in certain cases?

7. Give an outline of Sellmeier's theory of dispersion, illustrating it by a detailed discussion of the dispersive power of a medium with two absorption lines.

8. State and prove Wien's Displacement Law for temperature radiation. How has it been verified experimentally?

9. Briefly describe the theories of interference spectrometers.

10. Discuss the theory of diffraction through a circular aperture.

11. Write an essay on one of the following subjects:—

(1) The ultra microscope and the colours of bodies containing particles in suspension.

(2) The effect of pressure and temperature on line spectra.

(3) Facts and Theories of Colour Vision.

- (4) High frequency spectra and their application to the analysis of crystalline structure.
- (5) Resonance spectra of vapours.
- (6) Effects of magnetic and electric fields on line spectra.

ORGANIC CHEMISTRY.

GENERAL PAPER.

Examiner—DR. P. C. MITTER, M.A., PH.D.

Candidates are required to give their answers in their own words as far as practicable.

Not more than six questions to be attempted.

The questions carry the same number of marks.

1. Give a brief account of the dualistic theory and its subsequent overthrow.

2. Discuss fully the mechanism of the Grignard reaction, and give details of the methods you would employ to prepare by its means the following substances:—

(a) triphenyl carbinol, (b) phenyl acetic acid, and (c) phenyl propyl ketone.

3. Give details of the methods usually adopted for the preparation of the following substances and point out their more important uses:—

(a) diazomethane, (b) glycol chlorhydrin, (c) cyclohexanol, (d) veronal, (e) malachite green, (f) aspirin.

4. What is the present state of our knowledge regarding the structure of the diazo-compounds?

5. A monobasic acid of the composition C=76.6 per cent; H=12.1 per cent; O=11.3 per cent, gave with bromine an acid containing 36.2 per cent of bromine. The original acid was converted by oxidation with cold permanganate into a mixture of two acids, the silver salts of which contained 53.7 and 40.7 per cent of silver respectively. Ascertain the molecular formula and suggest a constitutional formula for the original acid. (Ag=108; Br=80).

6. Explain carefully how you would proceed to determine the constitution of the following compounds:—

(1) methyl orange, (2) vanillin, (3) quinoline, and (4) para-rosaniline.

7. Give an account of the methods employed for determining the configuration of the aldo-hexoses.

Establish the constitutional formula for mannose.

8. What are the uricædes and urethanes, and how are they prepared? Starting with uric acid, show how you could prepare (a) hypoxanthine, (b) guanine, and (c) adenine.

9. Describe the synthesis of the following substances:—

(a) ornithine, (b) tyrosine, (c) glycyl glycine, and (d) cystine, and explain their importance in the study of the proteins.

ORGANIC CHEMISTRY.

SPECIAL PAPER.

Examiner—DR. P. C. MITTER, M.A. PH.D.*Candidates are required to give their answers in their own words as far as practicable.**Not more than six questions to be attempted.**The questions carry the same number of marks.*

1. Write a short note on the manufacture of indigo at the present day.

Or,

Give an account of the methods which have been employed for the utilisation of *molasses* on an industrial scale.

2. What are the chief aids—both physical and chemical—to the determination of the constitution of the terpenes? Give an outline of the steps by which it has been possible to arrive at the constitution of any one of the following:—(1) dipentene; (2) terpineol.

3. Give a brief account of the modern local anæsthetics and their action.

4. What are Michael and Knoevenagel's reactions, and how are they brought about? Give examples of one of each to illustrate their application to the synthesis of cyclic compounds.

5. What is Walden Inversion? Give an account of any suggestions which have been put forward to explain this phenomenon.

6. Give details of the methods usually adopted for the preparation of the following substances and point out their uses:—

(a) violuric acid, (b) phenylene blue, (c) antipyrine, (d) guanidine, (e) coumarone, (f) adrenaline.

7. Give an account of our present knowledge of the chemistry of any one of the following:—

(a) Haematin; (b) Chlorophyll.

8. Discuss fully the constitution of either (a) atropine or (b) cocaine.

9. Give an account of optically active carbon compounds which contain no carbon atom which is asymmetric in the ordinary sense.

10. Criticise the statement that in the addition of a haloid acid to ethylenic compounds, "the halogen atom attaches itself to that carbon atom which is the least hydrogenised," and formulate a general rule applicable to all additive reactions of compounds containing the ethylenic linkage.

INORGANIC CHEMISTRY.

GENERAL PAPER.

Examiner—BABU CHANDRABHUSHAN BHADURI, F.C.S.

Only SIX questions to be attempted, at least one and not more than two being selected from each group.

The questions are of equal numerical value.

Candidates are required to give their answers in their own words as far as practicable.

GROUP A.

1. Trace the successive steps of reasoning, clearly distinguishing between facts and hypotheses, that led to the acceptance of the molecular structure of water as H_2O . Give an account of recent work on the subject, suggesting the presence of more complex molecules in the solid, liquid and gaseous forms of water.

2. Explain the term "passivity" of metals. Name the metals which exhibit this property and illustrate your answer with examples. What are the explanations that have been offered with regard to these phenomena?

GROUP B.

3. How is bromine manufactured at the present time, and how is it purified? Sketch the plant in both cases. What are the impurities, and how can they be detected? How can pure bromine free from moisture be obtained in the laboratory?

4. How is ozone obtained on an industrial scale? What are its uses? What is the objection to the potassium iodide test for ozone? Give a test free from this objection. How can ozone be distinguished from nitrogen oxides and halogens? How has the constitution of ozone been determined? How is liquid ozone obtained? Distinguish between ozone and "active" form of oxygen. Mention the present state of our knowledge of the latter.

5. Give an account of the manufacture of glass, with special reference to the following points:—

(a) The distinctive properties that make glass so very useful in the arts;

(b) the principal varieties of glass, pointing out their difference in composition and in properties;

(c) common defects in glass and how they are avoided.

GROUP C.

6. What are the principal forms in which gold, mercury and chromium occur in nature? How are these metals extracted from their ores? Mention their chief physical and chemical properties and their uses.

7. Why are the metals of the "rare earths" regarded as forming a distinct group by themselves? What are the forms in which they occur in nature, and how are they extracted? Discuss their position in the periodic classification.

8. How are the following substances prepared on a large scale now-a-days :—

Potassium ferrocyanide, Prussian blue, aluminium sulphate, chrome alum ?

Mention their uses.

INORGANIC CHEMISTRY.

SPECIAL PAPER.

Examiner—BABU CHANDRABHUSHAN BHADURI, F.C.S.

Only FIVE questions to be attempted, at least one and not more than two being selected from each group.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal numerical value.

GROUP A.

1. Write a history, from Lavoisier to Arrhenius, of the development of the theory of the structure of acids, bases and salts.

2. Classify the chlorides and double chlorides of metals. Discuss with typical examples the action of water on them with special reference to solubility and hydrolysis.

3. Describe clearly some of the important recent improvements introduced in experimental methods in connection with determination of atomic weights since the time of Stas.

GROUP B.

4. Describe clearly three different methods worked on different principles for manufacturing Chlorine as actually adopted at the present time, and discuss their respective economic merits. How is liquid Chlorine prepared, and what are its properties and uses ?

5. Give an account of the oxides and oxyacids of the halogen elements. Discuss their constitution.

GROUP C.

6. Name all the radio-elements and give their atomic weights. Trace their genealogy from their parent elements. Indicate the position of these elements in the periodic table and state clearly what important conclusions have been arrived at by the researches of Soddy and Richards in this connection.

7. Mention the different kinds of steel with their properties and uses. Describe methods, other than Bessemer's, for the production of steel, making special mention of the different electrical processes. Point out the comparative merits of steel produced by the different processes.

PHYSICAL CHEMISTRY.

GENERAL PAPER.

Examiner—BABU JNANCHANDRA GHOSH, M.Sc.*Only FIVE questions to be answered.**Candidates are required to give their answers in their own words as far as practicable.**The questions are of equal numerical value.*

1. How do you determine the vapour densities of substances at high temperatures? State concisely any method of determining the vapour densities of anhydrous substances.

2. What is Hydrolysis? Give an account of the methods of determining the degree of hydrolysis.

At 52°C the velocity constant of saponification of methyl acetate by N hydrochloric acid containing C grm. mols of urea per litre is k

$$\begin{array}{lll} C = 0.0; & 0.5; & 1.0 \\ K = 0.00315; & 0.00237; & 0.00184 \end{array}$$

Assuming that the velocity constant is proportional to the free acid, calculate the hydrolysis constant of urea hydrochloride.

3. Write an essay on the phenomenon of fermentation from the standpoint of catalysis.

4. How do you bridge over the gaps in the periodic table between lead and uranium?

5. What are the values of the energy-contents of a mol of a gas and that of a solid according to the Kinetic Theory? How far do specific heat determinations verify the values so deduced?

6. What are the evidences for the hypothesis that ions lead independent existence in dilute aqueous solutions?

7. Deduce an equation for the electromotive force of concentration cells. Classify the various types of these cells.

PHYSICAL CHEMISTRY.

SPECIAL PAPER.

Examiner—BABU JNANCHANDRA GHOSH, M.Sc.*Only FOUR questions to be answered.**Candidates are required to give their answers in their own words as far as practicable**The questions are of equal numerical value.*

1. What is the Law of Conservation of Mass? How was it established? Give a short account of some experiments carried out to test the accuracy of this Law.

2. How do you calculate the velocity of successive unimolecular reactions? Discuss the successive disintegration of some of the elements of the Uranium series as an illustration.

3. Give a short account of the investigations of Morse to determine the osmotic pressure of concentrated sugar solutions. State concisely some of the important hypotheses which explain the semipermeability of membranes.

4. Give an account of the methods of determining the absolute velocity of ions in aqueous solutions. Discuss thoroughly the theory of moving boundaries.

5. Deduce thermodynamically the maximum work available when 1 grm. mol of a liquid *A* is dissolved in *X* grm. mols of a liquid *B*. Apply your result to calculate the electromotive force of a lead accumulator.

6. How do you determine the Dissociation Constant of water?

At 25°C the dissociation constant of aniline is 4.8×10^{-10} and of acetic acid 1.8×10^{-5} . The ionic product of water is 1.2×10^{-14} . What is the degree of hydrolysis of 0.01 and 0.05 N solutions of aniline acetate, if the unhydrolysed aniline acetate is assumed to be completely dissociated?

PRACTICAL CHEMISTRY.

SPECIAL INORGANIC.

N.B.—Quote the numbers of your samples in your answer-book.

1. Estimate the amount of lead and P_2O_5 in the sample marked A.
2. Estimate the amount of Sodium (to be weighed as Na_2SO_4) in the sample marked B.

PRACTICAL CHEMISTRY.

GENERAL INORGANIC.

N.B.—Quote the numbers of your samples in your answer-book.

1. Make a complete qualitative analysis of the sample marked A both by the dry and wet methods. Name the constituents of the mixture.
2. Estimate the copper and iron in the sample B, the former is to be weighed as Cu_2S ; the latter may be estimated either volumetrically or gravimetrically and is to be expressed as FeO .

PRACTICAL CHEMISTRY.

PHYSICAL—SPECIAL.

Time allowed three days of six hours each.

1. Determine the Molecular weight of the Monobasic acid given by
 - (1) Acidimetry,
 - (2) by preparing its Sodium Salt and converting it to Sodium Sulphate.
 (Substance given cinnamic acid.)

2. Prove Gladstone and Dale's Law with the substance given by determining its refractive index and density at three different temperatures between 30° and 50°C.

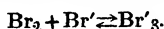
(Substance given ethylene di. bromide.)

PRACTICAL CHEMISTRY.

PHYSICAL—GENERAL.

(Time allowed two days of six hours each.)

How would you determine the constitution of the complex-ion formed by the interaction of Br_2 and Br' by the method of partition coefficient?



If D be the molecular concentration of free bromine Br_2 , B the mol. con. of total Br_2 and A original concentration of Br' ion. Show that

$$\frac{D(A-B-D)}{B-D} = \text{constant}.$$

PHYSIOLOGY.

Examiners— $\left\{ \begin{array}{l} \text{S. C. MAHALANOBIS, ESQ., B.Sc., F.R.S.E.} \\ \text{MAJOR D. MCCAY, M.D., I.M.S.} \\ \text{RAI BAHADUR DR. UPENDRANATH BRAHMA-} \\ \text{CHARI, M.A., M.D., PH.D.} \\ \text{HON. DR. NILRATAN SIRCAR, M.A., M.D.} \\ \text{N. BHATTACHARYYA, ESQ., M.A., B.Sc.} \end{array} \right.$

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The questions are of the same numerical value.

Attempt no more than THREE questions.

1. Write a short essay on the theory of action of Oxidases, referring to the peroxidase-like action of Haemoglobin.

2. State what you know regarding the work of Starling, his associates and followers on the respiratory exchanges of the heart in the diabetic animal.

3. Write a short essay on the correlation of the different internal secretions with regard to their influences on the genital functions.

4. Write a short note on the fate of the aromatic and other cyclic groups in the protein molecule during metabolism.

PHYSIOLOGY.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Attempt no more than THREE questions.

The questions are of equal numerical value.

1. Describe the mechanism of the string galvanometer. Discuss the theory of the electric changes that take place in muscle, in the heart during action, and in the retina under the influence of light.

2. "The determination of the acidity or basicity of proteins offer several difficulties." Why? Discuss the various methods that have been employed for determining the combining weights of proteins with acids or bases, and also write a note on the viscosity of protein solutions.

3. Write what you know about metabolism in experimental diabetes. What is the relationship of creatinuria to changes in the sugar content of the blood?

4. Give an account of the autonomic nervous system.

PHYSIOLOGY.

THIRD PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Attempt only THREE questions.

The questions are of equal numerical value.

1. Discuss, in the light of recent researches, the comparative importance of the different speech-centres in the brain.

2. Discuss in detail the different functions of the cones and the rods in relation to colour sensations.

3. Give a critical account of the investigation into the physiology of pain.

4. Discuss the mechanism of double reciprocal innervation, dealing particularly with the role played by *inhibition*.

PHYSIOLOGY.

FOURTH PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Attempt only THREE questions.

The questions are of equal numerical value.

1. Give an account of the conditioned reflexes.
2. Describe in detail the circumstances that affect nerve excitability and conductivity.
3. Give a critical account of the various theories advanced to explain the microscopical appearance of voluntary muscle and the histological changes that take place in it during contraction.
4. Discuss the various hypotheses which have been suggested to account for specificity of drugs on peripheral end-organs.

BOTANY.

FIRST PAPER.

Examiners—{ BABU SURENDRACHANDRA BANERJEE, M.A.
G. C. BOSE, Esq., M.A., M.R.A.C., M.R.A.S.,
F.H.A.S.

Candidates are required to give their answers in their own words as far as practicable.

The answers should be illustrated with neat pencil sketches, where necessary.

The questions are of equal numerical value.

1. Compare a *pine-cone* and a *pine-apple*, and state, with reasons and illustrative examples, whether or no, the two differ morphologically from each other.
2. Name and describe Indian insectivorous plants with special reference to their mechanism for capturing insects.

Or,

Describe the various forms of indumentum of plants, specially noticing their morphological value in systematic botany. Give examples from a local or provincial flora that you may have studied.

3. Describe the genus *Michelia*, noticing morphological peculiarities, if any. What is the position of the natural order to which the genus belongs, in Bentham and Hooker's or any other system of classification?

Or,

Indicate briefly the history of the development of the Natural System of Classification from the earliest times to the present date, and give a

brief sketch of either Bentham and Hooker's or Engler and Prantl's system.

4. Define pollination and describe the various adaptations in flowers for the several modes of pollination.

Or,

Compare the floral structure of the natural orders *Cyperaceae* and *Graminaceae*.

BOTANY.

SECOND PAPER.

Examiners—{ DR. P. BRÜHL, D.Sc., I.S.O., F.C.S.
J. C. NAG, Esq., B.Sc.

Answer either part (a) or part (b) of each question, not both.

The questions are of equal numerical value.

1. (a) Upon what principle is the mechanical tissue-system of plants based? Give examples.

(b) Characterize the stresses to which plant organs may be exposed, and give an account of the structure of organs specially adapted to resist flexural stresses.

2. (a) Discuss the structure and functions of the Statolith Apparatus of stem and root.

(b) Describe the tissue elements which, according to Nageli's theory, serve the purpose of transportation of plastic materials. On what evidence, anatomical or otherwise, is this theory based? What is the nature of the forces which control the movement of plastic materials in those elements?

3. (a) Give an account of the life-history of the wheat-rust fungus. Explain the cytological aspect of the formation of its different kinds of spores.

(b) Give an account of the morphology, the life-history and the affinities of Diatomaceae.

4. (a) Describe the structure of the sporophyte of *Marchantia* and compare it with that of *Aneura* and *Anthoceros*.

(b) Discuss the Diploid and Haploid phases in the life-history of Pteridophytes. How far does this phase distinction remains valid in Apogamy and Apospory?

5. (a) How would you proceed to investigate the microscopic structure of—

(a) the putamen of *Zizyphus Jujuba*;

(b) the testa of the seed of *Nigella sativa* or *Andrographis paniculata*;

(c) the ovule of *Brassica juncea* or *Nasturtium indicum*;

(d) the leaf of *Corchorus capsularis*?

(b) Show how the structure of the pollen-grains of species of *Acanthaceae* and the morphological characters of style, stigmatic surface, and anther of species of *Compositae* can be utilised for systematic purposes. Illustrate your statements by neatly executed sketches.

BOTANY.

THIRD PAPER.

Examiners—{ S. C. MAHALANOBIS, Esq., B.Sc., F.R.S.E.
 G. C. BOSE, Esq., M.A., M.R.A.S., M.R.A.C.,
 F.H.A.S.

*Candidates are required to give their answers in their own words
 as far as practicable.*

The questions are of equal numerical value.

1. Describe the structure and chemical composition of the nucleus, and give an account of the part it plays in the growth and reproduction of plants.

Or,

Write an essay on the circulation of water and air in plants.

2. Discuss the respective bearing of the various kinds of propagation met with in the vegetable kingdom on the preservation of species.

Or,

Show how the tissues of a plant are adapted to the functions which they have to perform.

3. Give an account of the occurrence of peptonising ferments and their action in the plant body.

4. Describe the histology of a transverse section through the aerial root of an orchid or an aroid, and explain how aerial roots nourish a plant.

5. Give an account of the influence of chlorophyll on the general configuration of a plant, with special reference to the forms assumed by lichens.

BOTANY.

FOURTH PAPER.

Examiners—{ C. C. CALDER, Esq., B.Sc., F.L.S.
 DR. P. BRÜHL, D.Sc., I.S.O., F.C.S.

The questions are of equal numerical value.

1. Compare the effects of a limited water supply to plants in (a) a high alpine climate; (b) a hot dry desert climate; (c) a muddy tropical sea-shore, such as the Sundribans.

2. Write a short essay on the modes of perennation of plants and parts of plants and explain the value of perennation.

3. Discuss the value of the temperature factor on the world distribution of plants. Mention families which are almost exclusively heatloving and others almost exclusively coldbearing.

Or,

What do you know regarding the periodic phenomena of vegetation within the tropics?

4. What is meant by monohybridism and by dihybridism? State, preferably in tabular form, what the offspring shows when a single pair of differentiating characters are crossed.

5. Write an essay on—

The work of Linnaeus.

Or,

The phases and objects of present-day botanical work.

6. "It is only by a study and comparison of both living and fossil plants that we can get any true conception of the whole scheme of plant life." Prove the correctness of this statement.

Or,

Point out the chief differences between the floras of the Upper and Lower Gondwanas.

GEOLOGY.

Examiners—{ DR. H. H. HAYDEN, C.I.E., D.Sc., B.E., F.R.S.
E. VREDENBURG, Esq., B.Sc., B.L., A.R.C.S.,
F.G.S.
H. C. DASGUPTA, Esq., M.A., F.G.S.
P. N. DUTT, Esq., B.Sc.

GROUP A.

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Only FIVE questions to be attempted.

The questions are of equal numerical value.

1. Give a summarised account of the crystallographic theories of: 1stly, Haüy; 2ndly, Hessel, Gadolin and von Lang; 3rdly, Bravais, Sohncke, Curie, von Fedorow, Schönflies and Barlow.

2. Explain the principles of stereographic projection, and construct a diagram representing a monoclinic crystal with the following faces: 010, 001, 110, 130, 100, 201, 111, $\bar{1}11$, 121.

3. Explain the law of double ratios or anharmonic ratio of four poles in a zone, and give an illustration of its practical application.

4. Describe the reflecting goniometer; explain how you would use it to measure the angles of a quartz crystal.

5. Describe the optical surfaces for the ordinary and extraordinary ray of a biaxial crystal.

6. Explain the formation of interference figures in convergent polarised light, and mention the differences observed in the case of rhombic, monoclinic, and triclinic substances.

GEOLOGY.

GROUP A.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Only FIVE questions to be attempted.

1. Describe the various ways in which minerals are formed, and illustrate your answer with Indian examples. 20
2. State all that you know about the origin of mineral oil, and describe the conditions under which petroleum is known to occur in India. What is *Kerosene*? 20
3. Describe the minerals that are associated with pegmatitic intrusions in India and indicate which of them are economically important. 20
4. (a) Describe how you would proceed to analyse a specimen of *wernerite*. 10
(b) Discuss the chemical composition of the *mica* group. 10
5. Give an account of the Haüy-Mitscherlich controversy, with a statement of the work done recently to solve the question. 20
6. Describe the following minerals:— 20
hambergite, mysorin, nepaulite, perovskite, sapphirine, scheelite, skutterudite, tawmawite, vivianite, and vredenburghite.
7. (a) Describe the conditions under which *diamond* is known to occur in nature. 10
(b) Discuss the advisability of starting a company for erecting glass factories in India. 10

GEOLOGY.

GROUP A.

THIRD PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

1. Explain how you would distinguish between metamorphic derivatives of the igneous rocks from those of the sedimentary rocks. Illustrate your answer with Indian examples. 25
2. Distinguish clearly between *magmatic stopping*, *magmatic assimilation* and *magmatic differentiation*, and discuss the syntectic-liquational hypothesis of Loewinson-Lessing. 20
3. Write an essay on petrographical Provinces 15

4. Give an account of the different types of diagrams that have been proposed to represent the chemical composition of an igneous rock graphically. 15

Or,

What gases have been observed in igneous rocks? How can they be gathered and examined?

5. Give an account of the Malani rhyolites. What light do they throw on the geology of the Salt Range? 15

Or,

Give an account of the igneous rocks met with in the Lower Gondwana coal-fields. 15

6. Give an account of the argillaceous rocks as found in India. 10

Or,

Write short notes on the following:—

Daling series, Deoban limestone, itacolumite, karewa, kodurite, laterite, monchiquite, plateau limestone, reh, and skomerite.

GEOLOGY.

GROUP A.

FOURTH PAPER.

The figures in the margin indicate full marks.

Only FIVE questions to be attempted.

1. What do you know of the mode of occurrence of native copper? Describe one famous occurrence and say what you know of any deposit found in the Indian Empire. 20

2. What do you know of the occurrence of ores of tin in the Indian Empire? Name any localities at which they occur and describe the mode of occurrence of each. 20

3. Where in India do the following minerals occur in quantities sufficient to make the deposits of economic importance? What is the origin of the mineral in each case?—*chromite, bauxite, magnesite, wolfram, pitchblende.* 20

4. Enumerate the chief ores of manganese and give the leading characteristics of each. Where in India do they occur in quantity? 20

5. Define the following terms as used in connection with ore-deposits: *stockwork, gossan, metasomatic replacement, secondary enrichment, lateral secretion, chute, vug, country.* 20

6. What are mix-crystals? Discuss the manner in which they solidify, giving examples. 20

GEOLOGY.

GROUP B.

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Answer no more than FIVE questions.

The questions are of equal numerical value.

1. Give a brief account of the life of the Mesozoic period.
2. Give a condensed account of the general morphology, classification and stratigraphical significance of the Actinozoa.
3. Give the zoological position and vertical range of—
Dentalidae, Pleuromyacidae, Trematidae, Tentaculidae, Lithistidae, Nerineidae, Echinothuridae, Limidae, Lituitidae, Aptera.
4. Describe the general morphology and vertical range of the Ammonites and classify them, indicating their kinship and showing their value in the determination of horizons by reference to the rocks of England.
5. Where would you draw the line of demarcation between the Palaeozoics and Mesozoics, and why?
6. Describe the palaeontological characters of the Triassic period.
7. Give the leading characters and range in time of—
(1) Graptolitidae, (2) Blastoidea, (3) Spiriferidae, (4) Hippuritidae, (5) Eurypteridae.

GEOLOGY.

GROUP B.

SECOND PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Only FIVE questions to be attempted.

The questions are of equal numerical value.

1. Describe the dentition of the Elephantidae.
2. Give an account of the Cycadofilices or Pteridospermeae.
3. Give brief definitions of the following terms: acrodont, bilophodont, brachyodont, diastema, diprotodont, haplodont, heterodont, homodont, hypsodont, lophodont, monophyodont, pleurodont, polybunodont, polyphyodont, polyprotodont, protodont, secodont, selenodont, thecodont, triconodont.
4. Enumerate the principal reptilian orders and families of the Jurassic, with their distinguishing characteristics.
5. How would you distinguish coniferous from dicotyledonous fossil wood?
6. Give an account of the order Creodonta, mentioning any Indian occurrences with which you may be acquainted.

GEOLOGY.

GROUP B.

THIRD PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Attempt the questions of group A and two of the questions of group B.

The questions are of equal numerical value.

GROUP A.

1. Explain as minutely as you can how water is stored in rocks, and classify the rocks according to the facility of passage of water through them. What is ground water, and what is its connection with the level of water in wells and rivers? Show, with illustrative sketches, the favourable and unfavourable positions for deep wells in areas of stratified rocks.

2. Explain how the present scenery of the land has been brought about, contrasting the actions and results of the various agencies concerned and giving chemical equations as far as possible.

3. Explain with illustrative sketches and indicate the significance where necessary of—

(i) Unconformity, (ii) Volcanic tuff, neck and cone, (iii) Conglomerate, (iv) Passage of one series of beds into another, (v) Contemporaneous erosion, (vi) Breccia, (vii) Vein, (viii) Lateral passage of one rock into another, (ix) Dyke.

GROUP B.

4. Criticise the various theories proposed in explanation of *one* of the following—(1) Earthquake, (2) Volcanoes, (3) Coral Islands, (4) Origin of lakes.

5. Write an essay on Metamorphism.

6. Describe the chief types of deposits being laid down at the present day. To what extent is each represented in the older rocks?

7. Where would you draw the boundary between the Mesozoics and Cainozoics?

GEOLOGY.

GROUP B.

FOURTH PAPER.

Only FIVE questions to be attempted.

1. Discuss the nature and origin of the salt of the Salt Range and 20 of Kohat.

2. Name the chief minerals of economic value found in the Tertiary 20 rocks in the Indian Empire and give some of the more important localities at which they occur.

3. In what rock system or systems has graphite been found in India? Name some localities and indicate the manner in which you would set about to search for and prove new deposits. 20
4. Describe the Mergui series and enumerate any minerals of economic value associated with it. 20
5. Discuss the probable origin of the beds of iron ore occurring in the Dharwar system. 20
6. What do you consider the prospects of finding artesian water at (1) Calcutta, (2) Agra, (3) Umballa, (4) Rangoon? 20

GEOLOGY—PRACTICAL.

FOURTH PAPER.

1. Draw a section across the map provided along the line $x-y$. 40
2. Interpret the Section A. 15
3. You are asked to examine 30
 - (i) a tract of country (B) for petroleum, and
 - (ii) „ „ (C) „ Water.

Describe briefly how you would do so, indicating what kind of rocks and with what structure you would regard as most favourable for each case, and illustrating by means of diagrams the most and least favourable sites for putting down boreholes or wells.

4. Describe briefly but fully any mine or mineralogical occurrences you may have actually visited in the field, giving a sketch map and sections and making your observations as complete as possible. 15

Preliminary Scientific M.B. Examination.

NOVEMBER 1917.

CHEMISTRY.

THEORETICAL.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

THREE questions only to be answered from each half; the first question in each half is compulsory.

Write the answers in each half in SEPARATE books.

FIRST HALF.

Examiner—RAI CHUNILAL BOSE, BAHADUR, M.B., I.S.O.,
F.C.S.

1. What is the chief source of Phosphorus and how is it obtained ? 80
Describe the properties of the two forms of this element and mention not more than three elements with which it will combine, giving equations to represent the changes that occur.
2. How would you show experimentally that, at any given temperature and pressure, 20 c.c. of steam can be produced from amounts of Hydrogen and Oxygen, which if measured at the same temperature and pressure as the steam, occupy 20 c.c. and 10 c.c. respectively ? 60
Give a sketch of the apparatus you would use for this purpose.
3. State the conditions under which (a) Carbon, (b) Chlorine, and (c) Iron reacts with water. Mention the products in each case, giving equations. 60
4. How would you obtain metallic mercury from its compound ? 60
Give an account of the properties and uses of the metal. What do you know of its compounds with (a) oxygen and (b) chlorine ?

SECOND HALF.

Examiner—DR. BENIMADHAB CHAKRABARTI., B.A., L.M.S.

5. What is Allotropy ?
Give one good method for the preparations of Ozone in the class. 80
What are its properties ? How would you prove that three volumes of oxygen condense to form two volumes of ozone ?

6. State Avogadro's Law.

60

Assuming that the law is true, how would you show that the molecule of hydrogen contains at least two atoms.

7. How is Caustic Soda prepared on a manufacturing scale? Describe its properties and state its chief uses in the Laboratory and in the industries.

60

8. Describe the preparation, properties, characteristic tests and the chief uses of the following substances:—

(a) Ferric Chloride.

(b) Silver Nitrate.

(c) Zinc Oxide.

(d) Sodium Hypochlorite.

PHYSICS.

Examiner—TULSIDAS KAR, ESQ., M.A.

Candidates are required to give their answers in their own words as far as practicable.

The questions carry equal marks.

Only THREE questions to be attempted in each half.

Write the answers to the two halves in SEPARATE books.

Sketches should be drawn in pencil.

FIRST HALF.

1. Briefly describe the common balance and state the conditions of accuracy. How would you test that these conditions are actually satisfied? Show clearly how correct weightments can be obtained with a wrong balance.

2. State Archimedes' Principle, and explain one method for verifying it.

Explain how, by the application of the above principle, the volume of an irregular piece of stone can be accurately found. Deduce the formula to be used.

3. Explain the functions of the different parts of the human ear, in the transmission of sound vibrations. How are these vibrations modified during transmission?

4. Describe a method for finding the coefficient of true expansion of a liquid.

Calculate the pressure, in proper unit, exerted by a vertical column of mercury 760 mm. high, the temperature being 30°C.

Density of mercury at 0°C = 13.59.

Coefficient of expansion of mercury = 0.000181.

'g' = 979 cm/sec².

5. Give a sectional diagram of a hypsometer with an index of parts. How can you measure heights with it? What is the liquid used, and why? Why is the bulb of the thermometer placed above the surface of the liquid?

SECOND HALF.

Examiner—NIBARANCHANDRA RAY, ESQ., M.A.

6. Describe carefully the structure of the eye and explain the defects to which some of its parts are liable.

7. Describe the spectroscope and give the working adjustments. What are its uses?

8. State and explain Lenz's law, and apply it to obtain the direction of an induced current in two simple cases.

9. State and explain Faraday's laws of electrolysis. Define electrochemical equivalent.

For how long must a current of one ampere be sent through a silver voltameter to obtain a deposit of 3 grams of silver, when the E.C.E. of silver is 0.001118?

10. Describe an arrangement for producing X-rays and explain some of the properties of these rays.

BOTANY.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

The questions carry equal marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—C. C. CALDER, ESQ., B.Sc.

1. Give as full an account as you can of *one* of the following families:—

Leguminosae.

Labiatae.

Gramineae.

2. Describe the life-history of a moss *or* a fern and clearly state what is meant by "alternation of generations."

3. Describe with examples the terms corm, bulb, tuber, spadix, corymb, as applied in botany.

SECOND HALF.

Examiner—DR. EKENDRANATH GHOSH, M.D., M.Sc.

Only two questions to be answered.

4. Compare the microscopic structure of the stem of a Dicotyledon with that of a Monocotyledon.

5. Enumerate, with examples, the various modifications of a leaf.

6. What is meant by Photosynthesis? What are the necessary conditions for the process?

ZOOLOGY.

Candidates are required to give their answers in their own words as far as practicable.

Write the answers to the two halves in SEPARATE books.

The questions carry equal marks.

FIRST HALF.

Examiner—S. W. KEMP, Esq.

Attempt TWO questions only.

1. Explain how the following animals breathe, giving an account of the structures involved:—*Hydra*, *Palaemon*, the Cockroach, *Achatina*.
2. How is excretion effected in *Amoeba*, *Hydra*, the earth-worm and *Palaemon*?
3. What do you understand by the following terms:—trophozoite, mutation, cnidocil, proctodaeum, branchiostegite, glochidium, gametocyte, crystalline style, chromatin, radula?

• SECOND HALF.

Examiner—DR. EKENDRANATH GHOSH, M.D., M.Sc.

Only TWO questions to be answered.

4. Describe briefly the vascular system of a toad and compare it with that of a bhukti.
5. Describe and compare briefly the central nervous systems of Fish, Toad and Guinea pig.
6. Define the following terms:—
Placenta, Allantois, Quadrate bone, Ventricle, Hyomandibular bone, Pineal body, Carotid gland, Vermiform appendix, and Coeliac artery.

First M.B. Examination.

NOVEMBER 1917.

ANATOMY.

PASS PAPER.

Write the answers to the two halves in SEPARATE books.

The questions carry equal marks.

FIRST HALF.

Examiner—DR. NANILAL PAN, M.B.

Only two questions to be attempted.

1. Describe the origin, insertion, nerve supply, action and relations of the Sartorius.
2. Describe the Corpus Callosum.
3. Write short descriptions of :—
Femoral Sheath; Portal Canal; Epiploic Foramen (Foramen of Winslow); Peyer's patches; Trigonum Vesicæ.

SECOND HALF.

Examiner—LT.-COL. R. P. WILSON, F.R.C.S., I.M.S.

Only two questions to be attempted.

4. Give the relations and distribution of the Ulnar nerve in the forearm and hand.
5. Describe the capsule of the Hip joint and enumerate the muscles in actual contact with it.
6. Describe the relations of the Pancreas.

ANATOMY.

HONOURS PAPER.

Examiner—SAME AS FOR PASS PAPERS.

Candidates are required to give their answers in their own words as far as practicable.

The questions carry equal marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Attempt two questions only.

1. Describe the form and give the position and relations of the Pituitary Body. State its development.
2. Describe the formation, course and termination of the Portal Vein. Enumerate its tributaries.
3. Give the deep and superficial origin, course and distribution of the Glosso-pharyngeal nerve.

SECOND HALF.

Only two questions to be attempted.

4. Describe the vascular anastomosis around the knee and ankle joints.
5. Describe the lymphatic vessels and glands of the stomach.
6. Describe the origin, insertion, nerve supply and action of the intrinsic muscles of the Larynx.

PHYSIOLOGY.

PASS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Only two questions in EACH HALF to be answered.

The questions are of equal value.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—S. C. MAHALANOBIS, ESQ., B.Sc., F.R.S.E.

1. Describe the structure of the semicircular canals of the internal ear. What functions are attributed to them

2. What is the rôle of the thrombokinase in coagulation of the blood? Explain why blood obtained after the previous injection of proteoses into the circulation does not coagulate.

3. What is arterial tension? What factors influence it? What is its influence on venous circulation?

SECOND HALF.

Examiner—MAJOR D. McCAY, M.B., I.M.S.

4. Discuss the co-ordination of the movements of the eyes.
5. Write a short account of Cannon's researches on the movements of the stomach and intestines.
6. Discuss the absorption and anabolism of proteins in the body.

PHYSIOLOGY.

Examiner—SAME AS FOR PASS PAPERS.

Candidates are required to give their answers in their own words as far as practicable.

Only TWO questions in EACH HALF are to be answered.

The questions are of equal value.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

1. Give an account of the 'centres' in the brain that are associated with vision, and describe the defects that are ascribed to lesions of these parts.

2. Explain how the venous pulse may be taken as an index of intra-auricular pressure. How may the pressure of the blood within the cavities of the heart be measured?

3. Give an account of the part played by internal secretions in the process of digestion.

SECOND HALF.

4. Write a short account of what you know about painful sensations.
5. Discuss the spinal cord as an organ of conduction.
6. Write a short note on the protein requirements of the body.

ORGANIC CHEMISTRY.

THEORETICAL.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—RAI CHUNILAL BASU, BAHADUR, M.B., I.S.O.,
F.C.S.

Answer question 1 and two of the remaining three questions.

1. Describe one method for the determination of the molecular weight of a non-volatile organic compound, giving a rough sketch of the apparatus you would use for the purpose. 40
2. What is Urea, and how can it be prepared artificially in the laboratory? Explain all the reactions involved in the process and state its properties and tests. 30
3. State the constitution of carbohydrates. How are they classified? Name one prominent member of each class, state how it is obtained and give its properties. 30
4. How would you obtain salicylic acid (a) from natural sources and (b) artificially? State its properties, tests and uses. 30

SECOND HALF.

Examiner—R. N. SEN, ESQ., M.A., M.Sc., F.C.S.

Answer question 5 and two of the remaining three questions.

5. You are given an organic compound supposed to contain C, H and N. Describe how you would proceed to establish its composition and its empirical formula. 40
6. Give the names and formulæ of three organic compounds possessing strong acid properties, and describe the preparation and characteristic tests of any one of them. 30
7. Write what you know about the chemical constitution of the following:— 30
 - (a) Esters; (b) Ketones; (c) Fats; and (d) Glucosides.
 Illustrate your answers with examples.
8. Give the structural formulæ and the characteristic properties of the following:— 30
 - (a) Glycerine; (b) Ethylene; (c) Acetaldehyde; (d) Phenol; (e) Aniline.

PHARMACOLOGY.

PASS PAPER.

Answer the questions to the two halves in SEPARATE books.

FIRST HALF.

Examiner—LT.-COL. B. H. DEARE, M.B., D.P.H., M.R.C.P.,
I.M.S.

1. Discuss the effect of Alcohol on the Central Nervous System 110
and compare this with the effect of Caffeine on the same system.

2. What do you understand by Incompatibility? Mention the 110
three main types, and give examples.

3. *Pilocarpine Nitras*—give its dose, therapeutic uses, and the 80
contra-indications to its use.

Or,

Mention the active principles of *Ipecacuanha*—Give the official
preparation with doses of *Ipecacuanha*, and mention its therapeutic
USES.

SECOND HALF.

Examiner—DR. BIDHANCHANDRA RAY, B.A., M.D., F.R.C.S.,
M.R.C.P.

4. What do you understand by Cardiac Diuretics? Give two 110
examples, and explain their mode of (diuretic) action.

5. What do you mean by the term "a Hypnotic." Describe the 110
mode of action of Bromides as hypnotics.

6. Enumerate the drugs which are used as vaso-dilators, and dis- 80
cuss briefly the Action of Amyl Nitrite as a vaso dilator.

PHARMACOLOGY.

HONOURS PAPER.

Examiner—SAME AS FOR PASS PAPERS.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

1. Discuss the parallelism which exists, if any, between the Iodine
content of Thyroid and its physiological activity as regards—

(a) Protein Metabolism;

(b) Fat Metabolism.

2. Discuss the effect of Opium on Respiration.

Or,

Discuss in detail the action of Digitalis on—

- (a) Sinus node;
- (b) Heart muscle;
- (c) Auriculo-ventricular bundle.

SECOND HALF.

3. Compare the mode of action and therapeutic value of Strychnine and Atropine as Cardiac tonics.

4. Explain what is meant by "salt action of a drug."

Illustrate your meaning by giving in detail the mode of action of Magnesium Sulphate used as a therapeutic agent.

Final M.B. Examination.

NOVEMBER 1917.

MEDICINE.

FIRST PASS PAPER.

Examiner—RAI BAHADUR DR. UPENDRANATH BRAHMACHARI,
M.A., M.D., PH.D.

The questions carry equal marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

1. Discuss briefly the variation of the heart beat.
2. Give the causes, symptoms physical signs pathology and diagnosis of dilatation of the stomach.

SECOND HALF.

3. Give the causes, symptoms, physical signs and diagnosis of Cerebral Thrombosis.

Or,

Under what conditions are alterations of the knee jerks met with ?

4. State the mode of origin, symptoms, signs and diagnosis of stone in the kidney.

MEDICINE.

SECOND PASS PAPER.

Examiner—LT.-COL. J. T. CALVERT, M.B., I.M.S.

The questions carry equal marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

1. Give the etiology, pathology, symptoms and diagnosis of Typhus Fever
2. Give the etiology, pathology, signs, symptoms, diagnosis and treatment of Myxoedema.

SECOND HALF.

3. State the conditions under which suppuration is met with in connection with the liver. State briefly the differential diagnosis of such a condition.

4. Give the etiology, morbid anatomy, signs, symptoms and diagnosis of Hydrophobia.

Or,

Give the etiology, morbid anatomy, signs and symptoms of acute Transverse Myelitis.

MEDICINE.

HONOURS PAPER.

FIRST HALF.

Examiner—RAI BAHADUR DR. U. N. BRAHMACHARI, M.A.,
M.D., PH.D.

1. Discuss the various clinical manifestations of Leishmaniasis. State what you know of the recent advances in treatment.

2. Give the etiology and state the mode of invasion of Cerebro-spinal Meningitis. Discuss briefly the differential diagnosis and treatment.

SECOND HALF.

Examiner—LT.-COL. J. T. CALVERT, M.B., I.M.S.

3. Give the causes of (1) Optic Neuritis, (2) Optic Atrophy. Discuss briefly the differential diagnosis of the cause in each case.

4. To what causes may vomiting be due? State briefly how you would arrive at a diagnosis of the cause.

Or,

5. Discuss the effects of Syphilis on the circulatory system.

SURGERY.

FIRST PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—LT.-COL. R. BIRD, C.I.E., M.V.O., M.D., I.M.S.

Answer BOTH questions.

1. Give the differential diagnosis of the causes of Cervical Cellulitis. 100
2. Give the causes of Hydronephrosis and their treatment. 100

SECOND HALF.

Examiner—DR. KARUNAKUMAR CHATTERJEE, F.R.C.S.

Answer ONE question only.

3. Give the differential diagnosis of inguino-scrotal swellings. 100
4. Describe the methods of immobilisation of fractures of the thigh, mentioning any recent ones you know of. 100

SURGERY.

SECOND PASS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—LT.-COL. R. BIRD, C.I.E., M.V.O., M.D., I.M.S.

Only ONE question to be answered.

1. Give your methods of clinical diagnosis in a case of suspected perforation of the bowel. 100
2. Give the differential diagnosis of a case of swollen knee joint. 100

SECOND HALF.

Examiner—DR. KARUNAKUMAR CHATTERJEE, F.R.C.S.*Both questions to be attempted.*

3. Describe your treatment in a case of strangulated inguinal 100
hernia involving glycosurea previously unsuspected.
4. Give your differential diagnosis of swellings of the prostate. 100

MIDWIFERY AND GYNAECOLOGY.

PASS PAPER.

*Candidates are required to give their answers in their own words
as far as practicable.*

The figures in the margin indicate full marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—DR. KEDARNATH DAS, M.D.

1. Describe how the ovum is nourished. 125
2. Describe the changes in the uterus during the second stage of 125
labour: first in normal labour, second in obstructed labour.

SECOND HALF.

Examiner—MAJOR H. B. STEIN.

3. What are the causes of incontinence of urine in the female? 125
Outline the principles to be attended to in operation for the cure of
vesico-vaginal fistula. What is your treatment after operation?
4. What is Version? 125
Under what conditions will you perform internal Podalic Version?
Describe the operation.

Or,

What are the indications for induction of premature labour in a
woman eight months pregnant; how will you perform the operation?

MIDWIFERY AND GYNAECOLOGY.

HONOURS PAPER.

Examiners—SAME AS FOR PASS PAPERS.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Write answers to the two halves in SEPARATE books.

FIRST HALF.

1. A woman, five months pregnant, is suffering from dysentery 250 and extreme anaemia. Discuss in detail your management of the case.

SECOND HALF.

2. A patient, aged 22 yrs., last menstruated on 2nd May, 1917. 250 She is a primipara, her height is 4 feet 6 inches and weight is 64½ lbs. You find she is about 3 months, pregnant. Her measurements are as follows:—

Interspinous 8½".

Intercrestal 9½".

External Conjugate 6½".

Diagonal Conjugate 4".

What do you deduce from the above measurements, and what line of treatment will you advise?

PATHOLOGY.

PASS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Only FIVE questions to be attempted.

The questions carry equal marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—LT.-COL. SIR LEONARD ROGERS, KT., M.D., I.M.S.

1. Describe the naked-eye and microscopical changes in acute endocarditis, and enumerate the organisms which may produce it.

2. What are the causes of Splenomegaly, and how may they be differentiated pathologically?

3. Enumerate the different micrococci which are pathogenic to man, and the diseased conditions which may be produced by each.

SECOND HALF.

Examiner—DR. TARAKNATH SUR, L.M.S.

4. Describe briefly the various forms of pathological cysts, with illustrations. How do they differ from Cystoma?

5. Write short notes on the following:—

- (1) Cysticercus Cellulosæ.
- (2) Hæmo-flagellates.
- (3) Trichiniasis.
- (4) Opsonins.
- (5) Pyuria.

6. Describe briefly the morphology, cultural characters and pathogenicity of Diphtheria Bacillus.

MEDICAL JURISPRUDENCE.

PASS PAPER.

Candidates are required to give their answers in their own words as far as practicable.

Only TWO questions to be answered in each half.

The questions carry equal marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—MAJOR N. P. SINHA, M.B., M.R.C.P., I.M.S.

1. Define—

Hallucination, Illusion, Delusion, Paranoia, Melancholia, Mania, Rape, Strangulation.

2. Describe fully the signs and symptoms of poisoning by Carbolic Acid, and the post-mortem appearances after death.

3. Discuss fully the signs of Death.

SECOND HALF.

Examiner—RAI BAHADUR DR. LALBIHARI GANGULY, M.B.

4. A girl, aged twelve, was found hanging from a cross bamboo in a hut. It was alleged that the owner of the hut, a strong adult, had deflowered the girl, and then to shield himself had hanged the girl, when she was alive. What appearances would support the allegation?

5. Mention the tests for Blood stains. What is the specific test for Human blood? What is the importance of a specific diagnosis?

6. Give the post-mortem appearances of death from Drowning. Indicate briefly how the appearances you mention would be modified by advanced decomposition of the body.

MEDICAL JURISPRUDENCE.

HONOURS PAPER.

Examiner—SAME AS FOR PASS PAPERS.

Candidates are required to give their answers in their own words as far as practicable.

The questions carry equal marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Answer both questions.

1. Describe minutely how you will proceed to examine in a case of alleged Infanticide.
2. Describe minutely all you know about Lead Poisoning.

SECOND HALF.

Answer TWO questions only.

3. Mention the various circumstances that may call for a determination of the age of a person. Discuss the value of the data that are available for the purpose.

4. Describe in detail the procedure to be followed in the granting of Lunacy Certificates. When does the necessity arise for granting such certificates?

5. The body of a man was found at the foot of a mango tree with a bundle of mangoes tied round the neck. On the body were: (i) around the lower part of the neck, extending from the right side of the trachea to posterior edge of left sternomastoid muscle, a brown mark, as if from pressure of a cloth or large cord; (ii) abrasions and scratches, with dust adhering, on right front of the chest and anterior and outer aspect of right forearm; (iii) on right side of face and neck, several elongated bruises; (iv) bruises and abrasions over right scalp. All right half of skull broken into fragments, fissures radiate in all directions, all fragments irregular in shape, and lying loose on the brain. Discuss the cause of death and nature of the case.

HYGIENE.

Only TWO questions from each half to be answered.

The questions carry equal marks.

Write the answers to the two halves in SEPARATE books.

FIRST HALF.

Examiner—DR. C. A. BENTLEY. M.B., D.P.H.

1. By what means is Enteric Fever spread? Illustrate your reply by a brief account of any outbreaks of the disease of which you may have heard, and state very shortly the various measures of prevention necessary for checking the spread of the disease.

2. Enumerate the diseases that may be carried by flies, and indicate the measures necessary for reducing the number of the common House Fly.

3. Describe the conditions under which milk, butter and ghee is sold in Calcutta, and mention the common adulterants and the means by which they may be detected.

SECOND HALF.

Examiner—DR. TARAKNATH MAJUMDAR, L.M.S., D.P.H.

4. You are called upon to inspect a well the water of which is stated to have become impure; what examination would you make of the well and its surroundings to ascertain its liability to pollution, and how would you collect samples for chemical and bacteriological examination?

5. What preventive measures would you suggest for eradicating malaria in a small town in Bengal, of which you are the medical officer of health, assuming that the fund at your disposal is moderate?

6. Enumerate the requirements for a wholesome dwelling house.

M.E. Examination.

1917.

HINDU LAW.

Examiner—SIR GOORODAS BANERJEE, KT., M.A., D.L.,
PH.D.

*Candidates are required to give their answers in their own words
as far as practicable*

The figures in the margin indicate full marks.

*Of the seven following questions, which carry equal marks, only FIVE
are required to be answered, namely, the first two, the last, and any
two of the remaining four.*

1. (a) Quote, or give the substance of, the texts relating to the 20
definition of, and succession to, *stridhana*, in the Institutes of Manu
and of Yajnavalkya, commenting on any points of difference between
the two which may appear to you to be worthy of note.

(b) Set forth briefly the reasoning by which Vijnaneswara and
Jimutavahana have deduced their rules of succession of children to
their mother's *stridhana* from the texts of Yajnavalkya and Manu.

2. (a) Enumerate and define the different descriptions of sons in 20
Hindu law.

What is the reason for the recognition of these different descriptions
of sons? Which of them are valid substitutes for a legitimate son
at the present day?

(b) Compare the position of a *dattaka* son with that of an *aurasa*
son.

3. (a) Discuss the validity of an inter-caste marriage in Hindu law. 20

(b) Comment on the changes made in the Hindu law of marriage
by direct legislation in British India.

4. (a) Explain the reason why the succession of the son and grand- 20
son in Hindu law is treated under the head, partition, and not under
the head, inheritance. How far does that reason hold good strictly
in the Bengal School of Hindu law?

(b) What are the main points of difference between the Mitak-
shara and the Dayabhaga on the subject of partition of heritage, and
how does Jimutavahana arrive at his dissentient conclusions?

5. (a) Discuss the rule laid down in the Tagore case against the 20
validity of a gift to unborn persons in Hindu law.

(b) Is the rule applicable to a bequest to trustees for the estab-
lishing of an image and the worship of a Hindu deity, after the tes-
tator's death? Give reasons for your answer.

6. How far does unchastity in a Hindu female, with or without social degradation, (a) form a bar to her inheriting property from her relations, (b) form a bar to her relations inheriting property from her? Discuss the question, referring to texts and decided cases. 20

7. Write a short essay on either of the two following subjects:— 20

(i) The distinction between moral and legal injunctions in Hindu law.

(ii) The principles forming the basis of the Hindu law of Succession.

JURISPRUDENCE.

Examiner—DR. S. C. BAGCHI, B.A., LL.B., LL.D.

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Answer any FOUR questions.

1. Give a short account of the natural law doctrines of modern times. How would you refute these? 25

2. 'Every phenomenon depends on the medium in which it is produced. Law does not escape this general rule.'—Karkunov. Discuss this statement so as to show the bearing of social conditions on the development of Law, 25

3. Discuss the various forms of 'criminal sentence' employed by the English and the Roman tribunals from time to time, with special reference to their apparent objects and to the modification of these objects in recent times. 25

4. Explain the different principles of division, in a Corpus Juris, which are intended by Austin's Law of persons and Things, as compared with Blackstone's Rights of Persons and Things. Which do you consider to agree more with Gaius' Jus Personarum and Jus Rerum, and which to be more capable of practical utility? 25

5. "The attempt to distribute our personal forms of action under the two heads of contract and tort was never very successful or very important." Explain this remark by an English jurist. Does the distinction between the two types of action, referred to possess any importance from the view-point of a comparative jurist? 25

6. A mathematical professor succeeds in developing a formula in applied mechanics, which he sees may be of considerable pecuniary value in aviation. His only record of it is in a few lines at the bottom of the black-board in his lecture-room. After leaving the room he discovers that he has entirely forgotten a main point in the proof. On returning to refresh his memory, he finds that the whole thing has been rubbed out by his successor, a classical lecturer, who actually did not require room for more than a word or two on the board. Disappointed in his hopes, both of credit and emolument, the professor makes use of very strong language to the lecturer, in the presence of a large class; and the two separate, mutually vowing to have the law of one another. 25

Take these facts and apply the different standards of legal liability according to the varying notions of connexion between law and justice in diverse communities.

ROMAN LAW.

Examiner—HON. JUSTICE SIR ASUTOSH MOOKERJEE, K.T.,
C.S.J., M.A., D.L.

Candidates are required to give their answers in their own words as far as practicable, and are permitted to attempt FIVE questions only.

1. Give an outline of the procedure in litigation as described in the Twelve Tables.

2. Discuss the extent to which our knowledge of the Classical Roman Law was increased by the discovery of the Institutes of Gaius.

3. Give an account of the instructions given by Justinian to the Compilers of the Digest as to the method they were to pursue and the materials they were to use.

4. "Savigny succeeded in rehabilitating the scientific study of the Pandects, but his very success proved fatal to the further existence of the Pandect Law as the positive common law of Germany." Develop and illustrate.

5. "In the formal proceedings of the Ancient Law, legal validity did not depend on the actual existence of the state of intention indicated by the formal words of the transaction." Comment with illustrations from Roman Law.

6. Examine the precise extent to which the notion of "juristic persons" was recognized by Roman Jurists.

7. Sketch the outlines of a thesis on the use of wagers in Roman Legal Procedure.

8. Give an historical account of the evolution of Pignus and Hypotheca.

9. Give a brief statement of the provisions of Lex Aquilia as to damage to property.

What remedies, if any, other than those of Criminal law, existed in Rome, in the following cases:—

(a) Inducing persons to break contracts made with your neighbour.

(b) Letting your property get into such a condition as to endanger your neighbour's property.

10. Was there any difference in Roman Law between the vicarious responsibility in certain *quasi delicts* and that enforced by a noxal action? How did the liability in a noxal action differ before and after *litis contestatio*?

11. Discuss the effect of the following events occurring subsequently to the making of a Will by a Roman testator:—

(a) The death of a son whom the testator had not mentioned in the Will.

(b) The *capitis deminutio* of the testator.

(c) The *capitis deminutio* of the heir

12. "The complete change in the conceptions underlying *tutela*, which occurred in the course of the development of Roman Law, never found expression in the fundamental rules of the institution." Explain.

13. "It is contrary to equity that one should unjustly enrich himself at the expense of another."—*Pomporius*.

Trace the influence of this doctrine of unjust enrichment in modern English Law.

14. Give a general account of the law as to "risk" in *locatio conductio*.

15. Write a brief historical account of the Interdict in Roman Law, and illustrate the distinction between Prohibitory and Restitutory Interdicts.

PRIVATE INTERNATIONAL LAW.

Examiner—A. E. BROWN, ESQ., M.A., LL.B.

Candidates to attempt only SIX questions, of which three must be taken from Section A and three from Section B.

Wherever necessary, and especially in answers to problems, they are expected to quote, critically analyse and carefully differentiate ruling cases.

SECTION A.

1. In Maine the incompetency of the husband is a ground for divorce, whilst in England it is a ground for a declaration of nullity of marriage.

A is by nationality an American citizen with a domicile of origin in Maine. In 1905 he acquires an English domicile and in 1906 marries *B*, who is an Englishwoman both by nationality and domicile. The parties live together in England, but in 1907 *A* leaves England and obtains a position as an officer in the American navy. After that date *A* has no settled home, but in 1909, whilst he is temporarily resident in Maine, *B* goes to Maine and there obtains a divorce on the ground of *A*'s incompetency. *B* returns to England and inquires of you as to whether she can obtain in England a declaration of nullity of marriage. Advise her.

2. In 1916 an agreement was entered into in London between *X*, who carried on a business in Scotland, and *Y*, who carried on a business in London. According to the contract *Y* was to supply *X* with a patent machine which *X* was to use in drying grain. The dried grain was to be handed over by *X* to *Y* in the manner required by *Y*. The agreement concluded with the following clause: "Should any dispute arise out of this contract the same is to be settled by the arbitration of two members of the London Corn Exchange in the usual way." This arbitration clause was valid by English law, but void by Scotch law, because it did not name the arbiters. In subsequent legal proceedings between the parties the question of its validity arose. State your opinion.

3. *A*, a domiciled Scotchwoman, and *B*, a domiciled Englishman, being about to marry, enter into settlements of their respective properties. The settlement dealing with the property of *A* is in Scotch form and that dealing with the property of *B* is in English form. Both of them are executed in Scotland, where the marriage subsequently takes place. In the marriage settlement of *A* certain property is assigned to trustees to various uses and purposes, and amongst others for the payment of the whole income to *B* for his life, should he survive *A*, the payments to *B* to be "not assignable nor liable to arrestment at the instance of creditors." Such a clause is valid in Scotch law, but void in English. The property of *A* thus dealt with consisted partly of heritable bonds (regarded in Scotch law as immovables) and partly of cash. Some of the heritable bonds are subsequently sold and together with the cash the proceeds are invested by the trustees in English securities. After the marriage *A* and *B* reside permanently in England and *B* creates encumbrances on his interest in the property dealt with in *A*'s marriage settlement. Subsequently *A* dies and the trustees, all of whom are English, consult you as to the respective claims of *B* and his assignees. Advise them.

4. *A*, who is domiciled in England, draws a bill of exchange in the Spanish language and payable in Spain on *B*, who is domiciled in Spain, but who accepts the bill in England. The bill does not express the value received and is therefore invalid in Spanish law although valid in English law. *A* indorses the bill to *C*, a domiciled Englishman, who indorses the bill to *D*, a domiciled Spaniard. The bill is payable on a certain August

3rd. But on August 2nd, owing to Spain being in a state of war, Spanish legislation is passed extending the time of presentment, protest and notice of negotiable paper and the right of recourse against indorsers and other parties until November 2nd. Accordingly *D* does not present the bill on August 3rd, but gives no notice of non-payment on that day to *C*. On November 2nd the bill is presented to *B* and dishonoured. *D* gives notice of dishonour and protest to *C* in the manner required by Spanish law. *C* gives like notice to *A*, who refuses to pay the bill. *C* pays the bill to *D* and threatens to sue *A* in an English court. *A* comes to you for advice. State your opinion as to his liability.

5. *A*, an Englishman, acquires a domicile in California. In 1910 he enters into a verbal partnership with *B*, *C* and *D*, all of whom are domiciled Californians, to work a mine situated in California, each of the partners having an equal share. In pursuance of this agreement real property in the mine is acquired. In 1914 *A* leaves California and acquires an English domicile. The business not being a paying concern, a suit is commenced in California in 1915 for a dissolution of partnership and account. A writ is served on *A* in England and he is kept informed of all proceedings, but he does not enter an appearance in the action or take any part therein. A decree is made by the Supreme Court of California ordering the sale of the mine and an account. The account shows a deficiency of £4,000 after crediting the partnership with the proceeds of the mine. Of that amount *A*'s share is £1,000 and the Supreme Court of California gives judgment against him for that sum. *A* has no assets in California and *B*, *C* and *D* threaten to sue *A* on the judgment in England. Advise *A* as to his liability under the judgment.

6. *X*, an Englishman, acquires a domicile in Carolina. Whilst on a temporary visit to Spain a son *Y* is born to him out of wedlock. The mother of *Y* is *Z*, an Englishwoman domiciled in Portugal. Subsequently *X* acquires a Spanish domicile. After this *X* marries *Z*. Later still *X*, *Y* and *Z* all take up their abode in Italy, where *X* acquires an Italian domicile. *X* now dies intestate, leaving landed property in England and shares in various English companies. By the laws of England and Carolina children are not legitimised by subsequent marriage. By the laws of Spain, Portugal and Italy they are. By the laws of Spain, Portugal and Italy the entire intestate successions governed by the national law of deceased, and the national law also governs personal status and capacity. *Y* is the only child of *X*. Advise him as to his claim upon *X*'s property.

SECTION B.

7. "In my opinion the Court will not adjudicate on question relating to the title to, or the right to the immediate possession of, immovable property out of the jurisdiction. There are no doubt exceptions to the rule" (*Lord Parker in Deschamps v. Miller*, 1908 1 Ch. 856).

Comment on the above and quote recent cases bearing on the extent to which the Court will make the exceptions alluded to.

8. "The maxims adopted in England on questions of private international law were derived from those which prevailed on the Continent."—(*Westlake*).

State the leading features of the eighteenth century continental system of private international law and discuss how far that system was imported into England.

9. Discuss the extent to which foreign law is examinable by the Court.

10. "The theoretical basis on which rests the rules as to the extra-territorial effect of a discharge in bankruptcy is hard to discover."—(*Dacey*). Discuss fully this basis.

11. Discuss the extent to which the *lex domicilii* and the *lex loci contractus* respectively govern the capacity of a person, when his capacity is questioned on account of his age.

A, a domiciled Englishwoman, came of age when she reached 21. At the age of 22 she married *B*, a domiciled Mexican. By the law of Mexico 25 is the age of majority. At the age of 23 *A* made a will in England in which she left certain property consisting of movables and immovables in England to *C*. She died a year later. Advise *C*.

12. "Statutes of Limitation may be regarded from a double point of view."—(*Foote*)

State this double point of view and consider the importance of this distinction in private international law.

EQUITY.

Examiner.—DR. J. C. WEIRE, B.A., LL.D.

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

1. (a) Account for the growth of the jurisdiction of the Court of Chancery in England. 20

Or,

(b) Illustrate, by reference to Story's treatment either of "implied trusts" or of "constructive fraud," Sir H. Maine's remark that "legal fictions are the greatest of obstacles to symmetrical classification."

2. Explain fully either—

(a) The rules under which the doctrine of equitable estoppel is applied. 20

Or,

(b) Those under which relief is given in cases of "actual fraud"; and illustrate your answer by reference to English cases.

3. (a) Explain the nature of a benami transaction. Under what "head of equity" would you classify such transactions? How far does the rule, that when a fraudulent design has been carried into execution, equity will not relieve a party to it from the consequences of his own act, apply to such transactions? 15

Or,

(b) Criticise the statement of Peacock, C.J., that "The Hindu law . . . makes no provision for trusts."

4. (a) Illustrate, by reference to the facts of decided cases, the following enactment: "A trustee who is liable for a loss occasioned by a breach of trust in respect of one portion of the trust-property cannot set off against his liability a gain which has accrued to another portion of the trust property through another and distinct breach of trust." 15

Or,

(b) Discuss the limitations on the right of a beneficiary to follow trust-property into the hands of third persons. Have you noticed any peculiarity in the provisions of the Indian Trusts Act (S. 64) on this subject?

5. (a) After stating that the commission of "equitable waste" *must* be either a legal tort or a rightful act, Professor Langdell adds: "There are, however, true equitable rights and true equitable wrongs." Explain this. 15

Or,

(b) Amplify his statement that "while a compromise can be impeached only for fraud, an account stated can be impeached either for fraud or error."

6. Write a note on any one of the following subjects:—

15

(a) The rule in *Howe v. Earl of Dartmouth* and its corollaries.

(b) Equity acts *in personam*.

(c) Once a mortgage always a mortgage.

(d) Clogging the equity of redemption.

LAW RELATING TO WILLS.

Examiner—B. CHAKRABARTI, ESQ., M.A., Bar.-at-Law.

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Answer question 1 and any SEVEN of the remaining nine questions.

1. Write a short note on the construction of gifts over. Give 16 instances.

2. If there are any incidents attached to the gift inconsistent with a joint tenancy, it will be construed as a tenancy in common. Write a short note on this proposition and illustrate it with instances. 12

3. Give the outlines of an administration decree (preliminary) for the administration of the estate of a deceased testator in an ordinary administration suit. 12

4. What do you understand by the expression 'executor *de son tort*'? Write a short note on the rights and liabilities of an executor *de son tort*. 12

5. Write a short note on the history of the state of the law for testamentary and intestate succession which led to the passing of the Indian Succession Act. 12

6. Give a short history of the power of testamentary disposition possessed by Hindus in Bengal prior to the passing of the Hindu Wills Act, and point out the changes, if any, introduced by that Act. 12

7. "In construing the will of a Hindu it is not improper to take into consideration what are known to be the ordinary notions and wishes of Hindus with respect to the devolution of property." Where was this decided? Give at least three decided cases in support of this proposition. 12

8. A gift without express words of inheritance would, in the absence of a conflicting context, carry an estate of inheritance. Discuss the authorities shortly bearing on this proposition. Are there any exceptions to this rule? 12

9. In what cases would the court appoint an administrator *pendente lite*? What are his powers and liabilities? 12

10. Write a short note on each of the following subjects:—

12

- (1) Precatory trust.
- (2) Vested interest.
- (3) Contingent interest.
- (4) Period of distribution.
- (5) Administration *de bonis non*.

TRANSFER OF PROPERTY.

Examiner—HON. SIR B. C. MITTER, B.L., *Bar.-at-Law*.

In discussing questions, you should support your answers by reference to the cases on the subject.

Answer any FIVE out of the twelve questions.

1. Is there any difference as to damages recoverable on breach of a contract to sell land and contract to sell goods. Discuss the question fully, with special reference to the cases of (a) *Bain v. Fothergill*, L. R. 7 H.L. p. 206, (b) *Day v. Singleton*, 1899, 2 Ch. 320.

2. (a) A contract for the purchase of a lease stated that it was "subject to the approval of the purchaser's solicitor." The solicitor rejects the title wrongly but in doing this there is no *mala fides* or unreasonableness on his part. Discuss fully the rights of the parties.

(b) Vendors of land in a letter acknowledging the receipt of an offer by an intending purchaser wrote as follows: "Which offer we accept and now hand you two copies of conditions of sale." The condition of sale contained conditions of a special character. Was there a binding contract?

(c) A vendor in accepting all the terms offered by the purchaser states that a formal agreement is to be executed embodying those terms. Is there any binding contract till this agreement is executed?

3. When is time of the essence of the contract in an agreement for sale of land? Illustrate your answer with cases.

4. What are the usual covenants which a vendor gives to the purchaser in England on the sale of free-hold land?

(a) Is there any implied warranty of title in a conveyance of land on the part of the vendor either in England or here?

(b) When is the ordinary covenant for title and right to convey broken if it is discovered afterwards that the vendor had no title at the date of the conveyance? When is a covenant for quiet enjoyment broken? Discuss fully the difference between these two classes of covenants as regards the time of breach and the measure of damages.

5. What is the Rule against Perpetuity?

(a) Does this apply to (i) easements, (ii) negative covenants affecting land?

(b) Does the doctrine of *Tulk v. Moxhay* apply to covenants to lay out money or to do any other act so as to bind a purchaser taking land with notice of the covenant?

6. On what principle is the rule of *lis pendens* based? Discuss fully (a) when a suit becomes contentious, (b) what are the different kinds of suits to which the doctrine applies, (c) the time during which the doctrine is operative.

7. What was decided in the following cases:—

- (1) *Wheeldon v. Burrows*.
- (2) *Tapling v. Jones*.
- (3) *Angus v. Dalton*.

8. What is necessary to constitute an actionable obstruction of ancient lights? Discuss this question with special reference to *Colls v. Home and Colonial Stores, Limited*.

9. What is the principle of the decision in *Walsh v. Lonsdale*? Has that principle ever been extended to India? Discuss this question with reference to the principal Indian cases on the subject.

10. (a) How is an equitable mortgage constituted? How is it consistent with the Statute of Frauds which provides that all agreements relating to any interest in land should be in writing?

(b) Where there is a memorandum accompanying an equitable mortgage, is it necessary to register it? If it is not registered, to what extent can you prove the transaction by oral evidence? Sum up the leading authorities on this point.

(c) A, the owner of a house, borrows money from B on an equitable mortgage by deposit of title-deeds. C purchases the house from A subsequently for valuable consideration but has no notice of the mortgage. Discuss the rights of the parties.

11. If a mortgage is made to secure future advances, what is the position of a subsequent mortgagee (who has notice of the first mortgage), if the first mortgagee with notice of the subsequent mortgage goes on advancing money to the mortgagor on a third or fourth mortgage?

Compare the Indian law on the subject with the rule in *Hopkinson v. Rolt*.

12. Discuss the principle involved in the decision of *Gocul Das v. Puran Mall*, I.L.R. 10 Cal. (P.C.) 1035.

LAW OF EVIDENCE.

Examiner—HON. JUSTICE SIR ASUTOSH MOOKERJEE, KT.,
C.S.I., M.A., D.L.

Candidates are required to give their answers in their own words as far as practicable, and are permitted to attempt FIVE questions only.

1. Summarise the rules of evidence contained in the Visigothic Code.
2. Review the state of the Law of Evidence in England from the accession of the Stuarts to the Revolution, and illustrate your remarks by reference to the trial of Raleigh.
3. Indicate the chief characteristics of the Law of Evidence as administered in the British Indian Courts before the Indian Evidence Act was passed.
4. Formulate the rule of presumption of innocence in Criminal Cases, and illustrate its application by reference to one leading decision.
5. "The phrase 'best evidence' indicates a shaping principle and not an excluding rule." Explain, and illustrate by three examples from leading decisions.
6. Formulate the rule relating to the exclusion of hearsay evidence and illustrate three exceptions.
7. "You cannot ask a witness as an expert of opinion the precise question upon which the jury is to pass." In what sense, if at all, is this true?

8. In cross-examining the plaintiff's witness, the defendant questions as to his own case. Is this allowable? If allowed, can the defendant impeach the witness's character for veracity? Why?

9. You have occasion to prove the terms of certain telegraphic communications between the plaintiff and defendant. How would you do it? Give reasons.

10. In cross-examining two witnesses, you ask each, whether he was ever in jail. The first refuses to answer. May he be compelled to answer? The second answers, no. May you prove the contrary? May you, without having cross-examined, prove this by your own witnesses? Give reasons.

REAL AND PERSONAL PROPERTY.

Examiner—LALMOHAN DAS, ESQ., M.A., B.L.

Not more than FIVE questions are to be answered, THREE of Group A, and two of Group B.

Candidates are required to give their answers in their own words as far as practicable.

GROUP A.

1. Enunciate the rule in Shelley's case. State the reasons which have been assigned for the rule by learned Judges and text-writers. Discuss in what cases the rule applies, and in what cases it does not.

Discuss the case of *Van Grutten v. Foxwell* (1897), A.C. 658.

2. (a) Formulate the rules of the Common Law governing the creation of estates in remainder.

Illustrate the rules by examples.

(b) What becomes of the immediate freehold in case the tenant 'pur autre vie' dies during the life of the cestuique-vie?

3. Write a short thesis on either of the following topics:—

(a) Feudal tenure.

(b) Alienation of estates tail.

4. (a) Explain the causes or methods of the destruction of Contingent remainders.

(b) Can executory limitations be followed by legal remainder or can legal remainders be followed by executory limitations?

State reasons for your answer, and illustrate the same by examples.

5. Give a sketch of the procedure for winding up of joint stock companies, (a) compulsorily by Court, (b) voluntarily, (c) subject to the supervision of the Court, under the Companies Act (1908), 8 Edw. 7, C. 694

GROUP B.

6. Can an estate tail merge in the remainder or reversion in fee? Give reasons for your answer.

Is a base fee or the estate of a tenant-in-tail after possibility of issue extinct, protected at Common Law against merger?

7. What are the several points of distinction between a determinable estate, and an estate determinable by a condition?

8. (a) What are the several points of distinction between an executory devise, and a Contingent remainder ?

(b) Explain the reasons for the rule that whenever one limitation of a devise is taken to be executory, all subsequent limitations must likewise be so taken.

9. Expound the law relating to—

(i) shifting uses,

(ii) springing uses,

(iii) uses limited to take effect as remainders.

What are cross remainders ? Discuss the law relating to them.

10. (a) Discuss the legal effect and operation of a grant of consols to *A* and the heirs of his body.

(b) Discuss the legal effect and operation at law and in equity of a settlement of chattels, real and personal, to trustees in trust for *A* for his life, and after his decease, in trust for *B*, and the heirs of his body, and then in trust for *C* in fee.

M.D. Examination.

1917.

MEDICINE.

FIRST PAPER

Discuss the differential diagnosis of the following cases:—

CASE NO. 1.

H. A., a widow of 70, seen in consultation. Her mother died of old age at 81, her father of Diabetes at 60. Three sisters died of Pulmonary Tuberculosis.

H. A. has had 10 children—by first husband 8: two of these died of Pulmonary Tuberculosis, one of “dropsy,” 3 died in infancy, cause unknown. The two children by her second husband are living and well.

She enjoyed good health up to 1890, when she had strangulated hernia and was operated on. During the following year she did not feel well, had fever, chills, vomiting, and pain, and was operated on for right empyema (1891). This discharged for six months, but finally healed. Since that time she has complained of dyspepsia, sour, bitter eructations, dull pain in epigastrium, headache, malaise, and gradual loss of flesh—20 lbs. in all.

In May 1901 she had an attack of severe pain in the epigastrium, midway between the umbilicus and ensiform, the pain was relieved by hot drinks. A month later she had a similar attack, said to be due to acute neuralgia of the stomach. She vomited for 24 hours, almost continuously, “green, bitter stuff.” She had a similar attack with vomiting on September 1st, relieved by hot drinks. The next attack September 8th, then September 14: the last two relieved by morphia, $\frac{1}{4}$ grain. The next and most severe attack was on October 19. The pain started at a spot in the right back on the level of the 6th or 7th ribs, radiating straightforward to “the pit of the stomach,” then down the left side. The spot on the back was painful to the touch. She was given $\frac{1}{4}$ grain morphia and began to vomit and vomited about every $\frac{1}{2}$ hour for 36 hours.

She became very weak, but had a normal temperature and a pulse of 60. She passed hardly any urine during this 36 hours, but at the end voided nearly two quarts; this having an sp.g. 1022. Colour high, about 0.1% albumen and a few hyaline and fine granular casts. A sample taken 12 hours later was smoky, and was full of blood, and calcium oxylate crystals.

The patient now complained of pain in both flanks, and soreness over all the abdomen, especially the right side. The temperature now is 100°F. pulse 88. Blood pressure 145. No jaundice now or in any of these attacks, but the patient says she always looked a little yellow.

She is well preserved, rather fat. Liver normal in size. There is a point of extreme tenderness between eusiform and umbilicus. Heart and lungs negative. Colon distended with gas. On drawing back the eyelid a slight tinge of yellow is visible at the periphery.

CASE No. 2.

A plumber aged 37 was admitted on April 11th. He drinks and smokes to excess. Last evening he came home complaining of severe pains in both legs, especially the left one. about 1 A.M. he awoke unable to speak, or to move the right arm and leg. Soon after he became unconscious, with stertorous breathing. The right forearm was in flexion, the fingers of the right hand flexed and spastic, the mouth was drawn to the left; he made only inarticulate sounds. The right leg was spastic. By April 13th he had regained consciousness and he could move the toes slowly; otherwise he had no muscular control. There was no lead line. The chest and abdomen were normal, blood pressure 155, the blood and urine normal, right knee reflex lively as compared with the left. By April 15 the plantar extensor reflex had appeared in the right foot, Lumbar puncture was done on the 17th and the cells in the withdrawn fluid were 50 to the c.m. Practically all of them were lymphocytes.

MEDICINE.

SECOND PAPER.

1. Write an essay describing the various pathological conditions and symptoms brought about the Colon Bacilli.
2. Discuss the Etiology of Infantile Paralysis. Give an account of the transmission of the disease from
 - (a) Animals to man.
 - (b) Man to man.
3. Discuss the relation between the secretion of the Adrenals and the process of Respiration.

MENTAL DISEASES.

1. Discuss the psychoses due to lesions of the Thyroid gland and anuexa.
2. Discuss fully the psychical disturbances associated with Pellagra.
3. Describe the course, clinical varieties, and nature of Dementia Præcox.

PATHOLOGY.

-THREE questions only to be answered.

1. Describe the indications to be derived from microscopical and chemical examinations of cerebro-spinal fluid obtained by lumbar puncture in different pathological conditions.
2. Discuss the pathological conditions which lead to alterations in the coagulability of the blood.
3. What diseases are produced in man by spirochaetes? State how you would proceed to demonstrate each, and describe the methods of their infectivity.
4. Discuss the etiology of the different forms of suppuration in the liver, and mention the indications to be derived from examinations of blood.

